

10/541828

\*\*\*\*\* INVENTOR RESULTS \*\*\*\*\*

=> d his l37

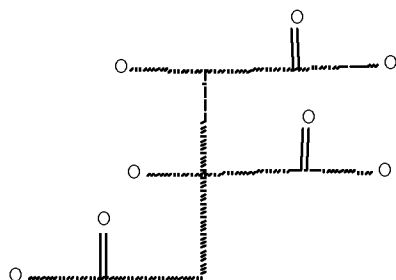
(FILE 'HCAPLUS' ENTERED AT 11:40:52 ON 14 MAR 2008)

SAVE TEMP L35 VAL828HCAP/A

L37 16 S L14 NOT L35

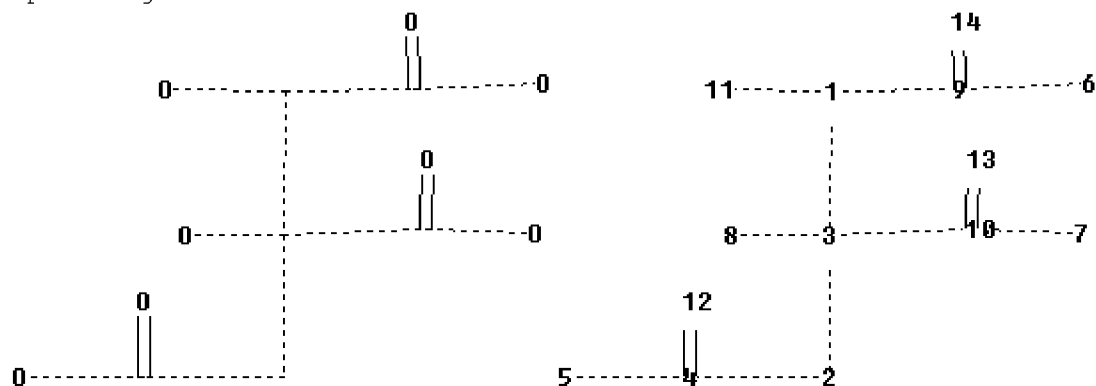
=> d que l37

L7 18 SEA FILE=HCAPLUS ABB=ON PLU=ON ("GOKARAJU GANGA RAJU"/AU OR  
"GOKARAJU RAMA RAJU"/AU)  
L8 15 SEA FILE=HCAPLUS ABB=ON PLU=ON "GOKARAJU RAMA RAJU"/AU  
L9 15 SEA FILE=HCAPLUS ABB=ON PLU=ON "GOTTUMUKKALA VENKATA  
SUBBARAJU"/AU  
L10 11 SEA FILE=HCAPLUS ABB=ON PLU=ON "SOMEPALLI VENKATESWARLU"/AU  
L11 17 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 AND ((L8 OR L9 OR L10))  
L12 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND ((L9 OR L10))  
L13 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L10  
L14 17 SEA FILE=HCAPLUS ABB=ON PLU=ON (L11 OR L12 OR L13)  
L18 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L3.str



chain nodes :

8 11 12 13 14

ring/chain nodes :

1 2 3 4 5 6 7 9 10

chain bonds :

1-11 3-8 4-12 9-14 10-13

ring/chain bonds :

1-3 1-9 2-3 2-4 3-10 4-5 6-9 7-10

10/541828

exact/norm bonds :

1-3 1-9 1-11 2-3 2-4 3-8 3-10 4-5 4-12 6-9 7-10 9-14 10-13

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L20 238 SEA FILE=REGISTRY SSS FUL L18  
L22 418 SEA FILE=HCAPLUS ABB=ON PLU=ON L20  
L24 99 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 AND 17/SC, SX  
L25 54 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 AND (AY<2004 OR PY<2004  
OR PRY<2004)  
L26 12650 SEA FILE=HCAPLUS ABB=ON PLU=ON "DIETARY SUPPLEMENTS"+OLD, UF/C  
T  
L27 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L26  
L28 84058 SEA FILE=HCAPLUS ABB=ON PLU=ON BEVERAGES+OLD, NT/CT  
L29 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L28  
L30 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 OR L29  
L33 28452 SEA FILE=HCAPLUS ABB=ON PLU=ON (DIET? OR BEVERAGE? OR FOOD?)  
(W) SUPPLEM?  
L34 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L25 AND L33  
L35 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L30 OR L34  
L37 16 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 NOT L35

=> d his 158

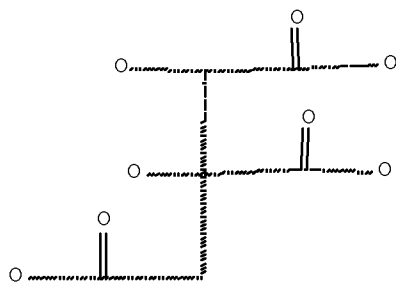
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2008)

L58 1 S L56 OR L57  
SAVE TEMP L58 VAL828MULTIN/A

FILE 'STNGUIDE' ENTERED AT 12:02:00 ON 14 MAR 2008

=> d que 158

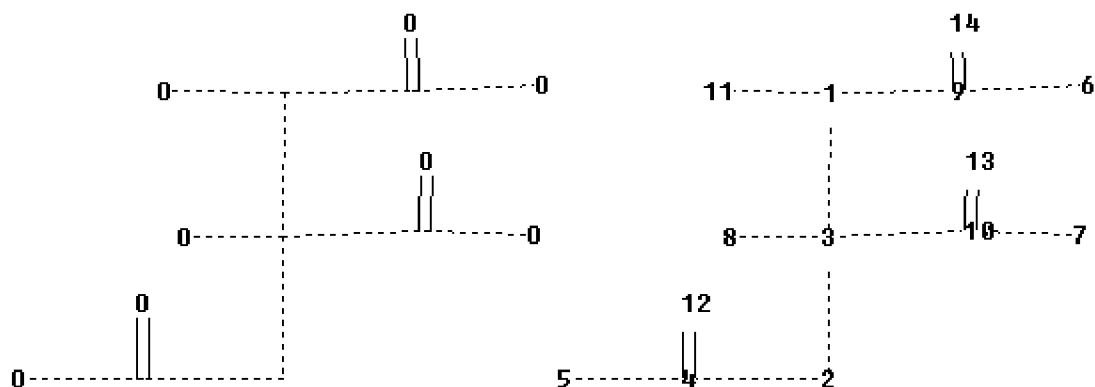
L18 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L3.str

10/541828



chain nodes :

8 11 12 13 14

ring/chain nodes :

1 2 3 4 5 6 7 9 10

chain bonds :

1-11 3-8 4-12 9-14 10-13

ring/chain bonds :

1-3 1-9 2-3 2-4 3-10 4-5 6-9 7-10

exact/norm bonds :

1-3 1-9 1-11 2-3 2-4 3-8 3-10 4-5 4-12 6-9 7-10 9-14 10-13

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L20 238 SEA FILE=REGISTRY SSS FUL L18  
L33 28452 SEA FILE=HCAPLUS ABB=ON PLU=ON (DIET? OR BEVERAGE? OR FOOD?)  
(W) SUPPLEM?  
L51 2 SEA GOKARAJU G?/AU  
L52 2 SEA GOKARAJU R?/AU  
L53 22 SEA GOTTUMUKKALA V?/AU  
L54 1 SEA SOMEPALI V?/AU  
L55 22 SEA (L51 OR L52 OR L53 OR L54)  
L56 0 SEA L55 AND L20  
L57 1 SEA L55 AND L33  
L58 1 SEA L56 OR L57

=> dup rem 137 158

FILE 'HCAPLUS' ENTERED AT 12:04:09 ON 14 MAR 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 12:04:09 ON 14 MAR 2008

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PROCESSING COMPLETED FOR L37

PROCESSING COMPLETED FOR L58

L59 17 DUP REM L37 L58 (0 DUPLICATES REMOVED)  
ANSWERS '1-16' FROM FILE HCAPLUS  
ANSWER '17' FROM FILE BIOSIS

=> d 159 1-16 ibib abs hitstr; d 159 17 ibib ab

L59 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:433976 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146:428892  
 TITLE: Process for producing enriched fractions of  
 tetrahydroxycurcumin and tetrahydrotetrahydroxycurcumi  
 n from the extracts of Curcuma longa  
 INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama  
 Raju; Gottumukkala, Venkata Subbaraju;  
 Somepalli, Venkateswarlu  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 32pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2007043058	A1	20070419	WO 2005-IN337	20051013
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: WO 2005-IN337 20051013

AB A process is given for producing an enriched fraction of tetrahydroxycurcumin containing, tetrahydroxycurcumin, demethylcurcumin, demethylmonodemethoxycurcumin and bisdemethoxycurcumin and colorless tetrahydroderivatives thereof. The process consists of demethylation of natural curcumins, obtained, in turn, from the organic solvent extract of turmeric from Curcuma species. The enriched fraction of tetrahydroxycurcumin is subjected to hydrogenation to get colorless tetrahydrotetrahydroxycurcumin enriched fraction. The enriched fractions of tetrahydroxycurcumin and colorless tetrahydrotetrahydroxycurcumin exhibits potent antioxidative action and reduces inflammation.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:285142 HCAPLUS Full-text  
 TITLE: Pharmaceutically active extracts of vitex leucoxydon,  
 a process of extracting the same and a method of  
 treating diabetes and inflammatory diseases therewith  
 INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama  
 Raju; Gottumukkala, Venkata Subbaraju;  
 Somepalli, Venkateswarlu  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl.  
 CODEN: PIXXD2

10/541828

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007029263	A1	20070315	WO 2005-IN299	20050905
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: WO 2005-IN299 20050905

AB The present invention relates to pharmaceutically active extracts of Vitex leucoxyton extracting hypoglycemic and anti-inflammatory properties. This extract is suitable for administering to animals and humans in treating diabetes, liver disorders and related inflammatory diseases. The extract is found suitable for treating insulin and non- insulin diabetes mellitus.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:944952 HCAPLUS Full-text

DOCUMENT NUMBER: 145:321742

TITLE: Novel salts of boswellic acids and selectively enriched boswellic acids and processes for the same

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Golakoti, Trimurtulu; Somepalli, Venkateswarlu

PATENT ASSIGNEE(S): India

SOURCE: PCT Int. Appl., 22pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006095355	A1	20060914	WO 2005-IN74	20050307
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM IN 2007CN03905 A 20071221 IN 2007-CN3905 20070907				

PRIORITY APPLN. INFO.: WO 2005-IN74 W 20050307

OTHER SOURCE(S): MARPAT 145:321742

AB The present invention relates to new salts or ion ion-pair complexes obtained by a reaction between boswellic acids or selectively enriched 3-O-acetyl-11-keto- $\beta$ -boswellic acid (AKBA) or 11-keto- $\beta$ - boswellic acid (KBA) compds. obtained through a new improved process, and an organic amine, more particularly with glucosamine. These salts or ion pair complexes are useful in nutraceuticals and in food supplements for antiinflammatory and analgesic treatment of joints and cancer prevention or cancer therapeutic agents. These salts or ion pair complexes could also used in cosmetic or pharmaceutical composition for external body part or organ to treat inflammatory diseases or cancer.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:54497 HCAPLUS Full-text

DOCUMENT NUMBER: 144:150504

TITLE: Novel structural analogs of corosolic acid having anti-diabetic and anti-inflammatory properties

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Golakoti, Trimurtulu; Somepalli, Venkateswarlu ; Chirravuri, Venkateswara Rao

PATENT ASSIGNEE(S): India

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

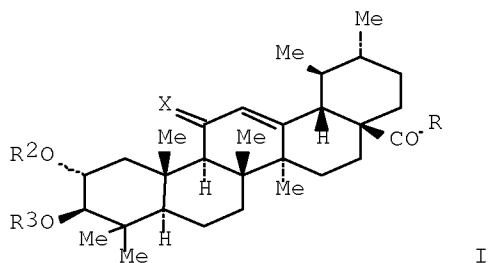
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006006178	A1	20060119	WO 2004-IN202	20040708
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1773749	A1	20070418	EP 2004-770667	20040708
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, HR, LT, LV, MK			
JP 2008505886	T	20080228	JP 2007-519984	20040708
US 2007167521	A1	20070719	US 2005-543387	20050726
IN 2006CN00913	A	20070615	IN 2006-CN913	20060315

PRIORITY APPLN. INFO.: WO 2004-IN202 W 20040708

OTHER SOURCE(S): CASREACT 144:150504

GI



AB Novel analogs, such as I (R = OH, OMe, NH<sub>2</sub>, alkylamino, etc.; R<sub>2</sub>, R<sub>3</sub> = H, acyl; X = H<sub>2</sub>, :O), of corosolic acid I (R = OH, R<sub>2</sub> = R<sub>3</sub> = H) were prepared and exhibited good hypoglycemic and 5-lipoxygenase inhibitory activities and inhibition of tumor growth was claimed. Thus, N-Phenylcorosolamide I (R = NHPH, R<sub>2</sub> = R<sub>3</sub> = H, X = H<sub>2</sub>) was prepared with 61% yield via an amidation reaction of 2,3-Di-O-acetylcorosoloyl chloride I (R = Cl, R<sub>2</sub> = R<sub>3</sub> = COMe, X = H<sub>2</sub>) with aniline using Et<sub>3</sub>N in THF. Pharmaceutical compns. containing known adjuncts and the title compound are also within the scope of this invention.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1124404 HCAPLUS Full-text

DOCUMENT NUMBER: 145:460510

TITLE: Novel triple mineral salts of (-)-hydroxycitric acid and processes for preparing the same

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu

PATENT ASSIGNEE(S): Laila Impex, India

SOURCE: U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006240074	A1	20061026	US 2005-525210	20050222
US 7208615	B2	20070424		
WO 2005085164	A1	20050915	WO 2004-IN56	20040309
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IN 2006CN00158	A	20070629	IN 2006-CN158	20060112
PRIORITY APPLN. INFO.:			WO 2004-IN56	W 20040309

AB This invention relates to novel triple salts of (-)-hydroxycitric acid having the general formula 1 wherein X, Y are selected from zinc or group IIA metal and Z is selected from group IA metals of the Periodic Table. Preferred salts are triple metal salts of calcium, magnesium or zinc and potassium. This invention also includes a process for preparing the triple salts by adding stiochiometric amts. of aqueous solns. of the compds. of the desired metal to an aqueous solution of (-)-HCA. Preferably an extract from Garcinia fruit ring is used as a starting material. Compds. of this invention are substantially tasteless, odorless and highly water soluble and find use in beverages and in nutraceuticals.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:170293 HCAPLUS Full-text

DOCUMENT NUMBER: 144:239978

TITLE: Dietary supplement formulation for controlling inflammation and cancer

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Golakoti, Trimurtulu

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2006040000	A1	20060223	US 2005-201416	20050811
PRIORITY APPLN. INFO.:			US 2004-600378P	P 20040811

AB This invention relates to a dietary supplement which is a phytochem. composition This composition is capable of controlling inflammatory conditions and preventing and curing cancer in mammals. The composition comprises a synergistic mixture of standardized Boswellia extract, salts of glucosamine, and curcuminoids optionally containing bromelain, chondroitin, methylsulfonylmethane, resveratrol, exts. of white willow and ginger, and quercetin. A composition was prepared by mixing unit doses of the following components: 5-loxin (300 mg), glucosamine hydrochloride (1.5 g), and curcuminoids (300 mg). Inhibitory effects of the composition in Brine shrimp cultures is shown.

L59 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:388873 HCAPLUS Full-text

TITLE: A process for producing a fraction enriched upto 100% of 3-o- acetyl-11-keto-b-boswellic acid from an extract containing a mixture of boswellic acids

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Golakoti, Trimurtulu; Pratha, Sridhar

PATENT ASSIGNEE(S): India

SOURCE: Indian Pat. Appl.

CODEN: INXXBQ

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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IN 2004CN00095	A	20060526	IN 2004-CN95	20040116
PRIORITY APPLN. INFO.:			IN 2004-CN95	20040116
AB The invention relates to a process for producing a fraction enriched upto 100% of 3-O-acetyl-11-keto- $\beta$ -boswellic acid from an extract containing a mixture of boswellic acids. This extract is oxidized and then acetylated in a known manner. It is possible to reverse the steps by first acetylating and then oxidizing. The resultant mixture is chromatographically separated to collect enriched fraction.				

L59 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1354483 HCAPLUS Full-text

DOCUMENT NUMBER: 144:88423

TITLE: Preparation of novel analogs of 3-O-acetyl-11-keto- $\beta$ -boswellic acid as 5-lipoxygenase inhibitors for use in pharmaceutical compositions

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Golakoti, Trimurtulu

PATENT ASSIGNEE(S): India

SOURCE: PCT Int. Appl., 50 pp.  
CODEN: PIXXD2

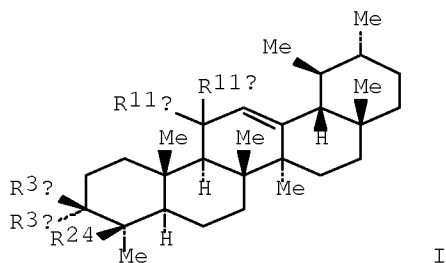
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005123649	A1	20051229	WO 2004-IN176	20040618
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1765761	A1	20070328	EP 2004-745123	20040618
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, HR, LT, LV, MK				
US 2006089409	A1	20060427	US 2005-540257	20050622
IN 2006CN00805	A	20070608	IN 2006-CN805	20060306
PRIORITY APPLN. INFO.:			WO 2004-IN176	W 20040618
OTHER SOURCE(S):		CASREACT 144:88423		
GI				



I

AB Boswellic acid analogs, such as I [R3a = Br, CN, SH,,OCHO, OCOMe, OCOCH2Cl, 3'-O-methylgalloyloxy, 4-hydroxycinnamoyloxy, etc.; R3b = H, OH; R11a OH, R11b = H; R11aR11b = :O; R24 = H, CO2H, CO2Me, CONH2, CONHNH2, NCO, NH2, CN, etc.;], were prepared for therapeutic use as 5-lipoxygenase (5-LO) inhibitors. These compds. may be used in pharmaceutical compns. for therapeutic applications against a variety of inflammatory and hypersensitivity-based human diseases including asthma, arthritis, bowel diseases such as ulcerative colitis and circulatory disorders such as shock and ischemia. Thus, 3-O-formyl-11-keto- $\beta$ -boswellic acid I (R3a = OCHO, R3b = H, R11aR11b = :O, R24 = CO2H) was prepared via a reaction of DMF with 11-keto- $\beta$ -boswellic acid I (R3a = OH, R3b = H, R11aR11b = :O, R24 = CO2H) using POCl3. These compds. were assayed for inhibition of 5-LO activity, and they also inhibited the growth of brine shrimp in cultures, which may be considered as a pos. indication for cytotoxicity and antitumor activity.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1154362 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:405041

TITLE: New double salts of (-)-hydroxycitric acid and a process for preparing the same for food use.

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu

PATENT ASSIGNEE(S): Gokaraju, Ganga Raju, India; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu

SOURCE: PCT Int. Appl., 17 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005099679	A1	20051027	WO 2004-IN107	20040419
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,			

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BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
TD, TG

CA 2579197	A1	20051027	CA 2004-2579197	20040419
US 2006106101	A1	20060518	US 2005-541828	20050712
IN 2006CN00245	A	20070720	IN 2006-CN245	20060119

PRIORITY APPLN. INFO.: WO 2004-IN107 W 20040419

AB This invention relates to new double salts of (-)-hydroxycitric acid with group II metals. Preferred double salts are calcium and magnesium double salts of hydroxycitric acid. This invention also includes a process for the preparation of these double salts by the addition of one metal compound from group II to (-)-hydroxycitric acid solution followed by the addition of another metal compound solution from group II. These double salts are tasteless and are soluble in water. They are useful as dietary supplements and in beverages.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:902669 HCAPLUS Full-text

DOCUMENT NUMBER: 143:235461

TITLE: Double salts of (-)-hydroxycitric acid with an amine and a group IIA metal

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu; Pratha, Sridhar

PATENT ASSIGNEE(S): India

SOURCE: PCT Int. Appl., 15 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005076747	A2	20050825	WO 2004-IN45	20040217
WO 2005076747	A3	20060330		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
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US 2005209445	A1	20050922	US 2003-516107	20041130
IN 2006CN00348	A	20070706	IN 2006-CN348	20060127
US 2007027110	A1	20070201	US 2006-572066	20060315

PRIORITY APPLN. INFO.: WO 2004-IN45 W 20040217

OTHER SOURCE(S): MARPAT 143:235461

AB This invention relates to novel double salt of (-)-hydroxycitric acid with an amine and zinc or a group II A metal. These compds. are stable and water soluble and are used as nutraceuticals, weight reducing agents and in beverages. Thus, calcium glucosamine double salt of (-)-hydroxycitric acid was prepared by the treatment of the acid with glucosamine and Ca(OH)2.

L59 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:1330533 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:74811  
 TITLE: New dietary supplement composition for obesity and inflammation  
 INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Somepalli, Venkateswarlu  
 PATENT ASSIGNEE(S): India  
 SOURCE: U.S. Pat. Appl. Publ., 6 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005282772	A1	20051222	US 2005-155486	20050620
PRIORITY APPLN. INFO.:			US 2004-580723P	P 20040621

AB The present invention relates to dietary supplement phytochem. compns., comprising calcium, potassium double salt of (-)-hydroxycitric acid and glucosamine hydrochloride, and optionally boswellic acids, curcuminoids, 5-hydroxytryptophan, chondroitin sulfate and L-carnitine. The claimed compns. are useful in dietary supplements, nutritional supplements or pharmaceutical preps. for weight loss and inflammatory epidemics. A phytochem. composition was prepared by mixing unit doses of the following components: calcium, potassium double salt of (-)-hydroxycitric acid (4 g), glucosamine hydrochloride (1.5 g) and boswellic acids (300 mg).

L59 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:589354 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:128781  
 TITLE: A process for extraction and purification of bacoside A and bacoside B from Bacopa species  
 INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Pratha, Sridhar  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 9 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060267	A2	20040722	WO 2003-IN2	20030103
WO 2004060267	A3	20041104		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
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10/541828

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
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BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003201756 A1 20040729 AU 2003-201756 20030103  
IN 2005CN01477 A 20070914 IN 2005-CN1477 20050701

PRIORITY APPLN. INFO.: WO 2003-IN2 A 20030103

AB The invention relates to extraction concentration and separation of fractions containing Bacosides A and B from plant materials of Bacopa species. The dried plant materials are subjected to alc. or hydroalcoholic or water extraction and concentration of the extract This solid mass is washed with a nonpolar organic solvent to remove fatty materials. The solid obtained is extracted with an organic polar solvent, the solvent extract is washed with water to remove water soluble contaminants therefrom and then dried in vacuum. This fraction, which is enriched with Bacosides A and B, is subjected repeated chromatog. separation and purification to obtain Bacoside A and Bacoside B.

L59 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:220144 HCAPLUS Full-text

DOCUMENT NUMBER: 140:271056

TITLE: Process for preparing (Z/E)-guggulsterones from 16-dehydropregnenolone acetate

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkal, Venkata Subbaraju; Somepalli, Venkateswarlu

PATENT ASSIGNEE(S): India

SOURCE: PCT Int. Appl., 14 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004021975	A2	20040318	WO 2002-IN181	20020903
WO 2004021975	A3	20040506		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

AU 2002330736 A1 20040329 AU 2002-330736 20020903  
US 2005085452 A1 20050421 US 2003-498316 20040610

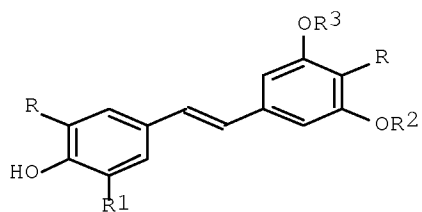
PRIORITY APPLN. INFO.: WO 2002-IN181 A 20020903

OTHER SOURCE(S): CASREACT 140:271056

AB The invention relates to an improved process for producing pharmacol. active synthetic stereoisomeric mixture of guggulsterones in the three steps. The mixture of guggulsterones consists of Z-guggulsterone [4,17(20)-trans-pregnadiene-3,16-dione] and E-guggulsterone [4,17(20)-cis-pregnadiene-3,16-dione] and could be in any relative ratio. This improved process comprises (a) epoxidn. of 16-dehydropregnenolone acetate with hydrogen peroxide to provide 16,17-epoxy-3 $\beta$ -hydroxypregn-5-en-20-one (I) (b) reduction of I with hydrazine hydrate to obtain 5,17(20)-pregnadiene-3 $\beta$ ,16-diol (II) and (c) oxidation of II.

L59 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:2686 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:59458  
 TITLE: Preparation of novel resveratrol analogs as  
 antioxidants  
 INVENTOR(S): Gokaraju Ganga, Raju; Gokaraju Rama,  
 Raju; Gottumukkala, Subbaraju Venkata;  
 Somepalli, Venkateswarlu  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004000302	A1	20031231	WO 2002-IN138	20020625
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,				
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,				
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,				
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,				
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,				
GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002319899	A1	20040106	AU 2002-319899	20020625
US 2004209951	A1	20041021	US 2004-486774	20040213
US 7026518	B2	20060411		
PRIORITY APPLN. INFO.:			WO 2002-IN138	A 20020625
GI				



I

AB This invention relates to novel resveratrol analogs of formula I [1: R = OH, R1, R2, R3 = H; 2: R = OH, R1 = Br, R2, R3, H; 3: R, R1 = OH, R2, R3 = H; 4: R, R1, R3 = H, R2 = 3,4,5-trihydroxybenzoyl; 5: R = R1 = H, R2 = R3 = 3,4,5-trihydroxybenzoyl; 6: R, R1, R3 = H, R2 = 3,4-dihydroxycinnamoyl; 7: R, R1, R3 = H, R2 = 3,4,5-trihydroxycinnamoyl; 8: R, R1, R3 = H, R2 = CH2CH2NMe2; 9: R, R1, R3 = H, R2 = COCH2NH2.HCl]. These compds. exhibited high antioxidant properties and are useful in food industry and in cosmetics. The compds. may be used in pharmaceutical composition as an antioxidant or free radical scavenger. Thus, I (R, R1 = OH, R2, R3 = H) was prepared reacting 3,4,5-

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trimethoxybenzylphosphonate with 3,4,5-trimethoxybenzaldehyde, followed by demethylation. The superoxide scavenging activity of I (R, R1 = OH, R2, R3 = H) was IC50 = 0.9 µg/mL.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:719314 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139:235371  
 TITLE: A process for producing enriched 3-O-acetyl-11-keto-  
 β-boswellic acid from a Boswellia extract  
 INVENTOR(S): Gokaraju, Ganga Raju; Gakaraju, Rama Raju;  
 Gottumukkala, Venkata Subbaraju; Golakoti,  
 Trimurtulu; Pratha, Sridhar  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074063	A1	20030912	WO 2002-IN34	20020305
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002242934	A1	20030916	AU 2002-242934	20020305
EP 1480662	A1	20041201	EP 2002-708608	20020305
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2004073060	A1	20040415	US 2003-432058	20030516
PRIORITY APPLN. INFO.:			WO 2002-IN34	A 20020305

AB The invention relates to a process for producing a fraction enriched up to 100% of 3-O-acetyl-11-keto-β-boswellic acid(AKBA). An organic solvent extract of gum resin from Boswellia species is first subjected to oxidation and then acetylation or vice versa. This converts the less potent boswellic acids present in the fraction to AKBA. This fraction is subjected to further purification and separation by chromatog. separation techniques to enhance its purity and to remove contaminants therefrom. This process provides an access to a fraction enriched in 10-100% AKBA for therapeutic applications.

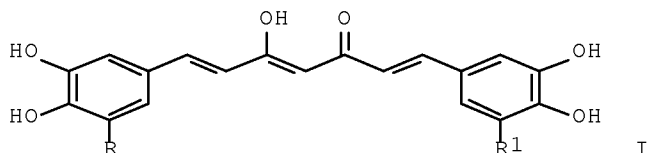
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:814082 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:310755  
 TITLE: Preparation of polyhydroxycurcumin derivatives and their therapeutic use as antioxidants  
 INVENTOR(S): Gokaraju, Ganga Raju; Gottumukkala,  
 Venkata Subbaraju; Somepalli,

10/541828

Venkateswarlu  
 PATENT ASSIGNEE(S): Laila, Impex, India  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083614	A1	20021024	WO 2001-IN90	20010418
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001256662	A1	20021028	AU 2001-256662	20010418
US 2003216600	A1	20031120	US 2003-333971	20030124
US 6900356	B2	20050531		
PRIORITY APPLN. INFO.:			WO 2001-IN90	W 20010418
OTHER SOURCE(S):			CASREACT 137:310755; MARPAT 137:310755	
GI				



AB The present invention relates to the preparation of polyhydroxycurcumin derivs. I [R, R1 = H, OH, OMe], by reacting substituted aromatic aldehydes with a diketone in the presence of boron oxide, alkyl borate and a primary or secondary amine catalyst. If desired, the resulting compds. can be deprotected by known means. Thus, reaction between acetylacetone and 3,4-dibenzoyloxy-5-methoxybenzaldehyde provided 1,7-bis(3,4-dibenzoyloxy-5-methoxyphenyl)-3-hydroxy-1,3,6-heptatrien-5-one, which upon deprotection, afforded I (R, R1 = OH). I are used as antioxidants.  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L59 ANSWER 17 OF 17 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on  
 STN  
 ACCESSION NUMBER: 2006:134498 BIOSIS Full-text  
 DOCUMENT NUMBER: PREV200600144932  
 TITLE: Process for preparing highly water soluble double salts of hydroxycitric acid particularly alkali and alkaline earth metal double salts.



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AUTHOR(S): Gokaraju, Ganga Raju [Inventor]; Gokaraju,  
Rama Raju [Inventor]; Gottumukkala, Venkata  
Subbaraju [Inventor]; Pratha, Sridhar [Inventor]  
CORPORATE SOURCE: Andhra Pradesh, India  
ASSIGNEE: Laila Impex  
PATENT INFORMATION: US 06875891 20050405  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (APR 5 2005)  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 22 Feb 2006  
Last Updated on STN: 22 Feb 2006

AB This invention relates to a novel process for preparing highly water soluble alkaline earth metal and alkali metal double salts of hydroxycitric acid. These salts are practically odourless and has negligible taste and are therefor useful as nutraceuticals. Aqueous extract of the fruits belonging to Garcinia species are treated to precipitate its alkaline earth metal salts such as the calcium salt. This sparingly soluble product is dissolved in alkali hydroxide and the pH of the solution is adjusted by adding purified extract of the fruit rind. Ca/Na or Ca/K double salts are particularly useful.

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\*\*\*\*\* QUERY RESULTS \*\*\*\*\*

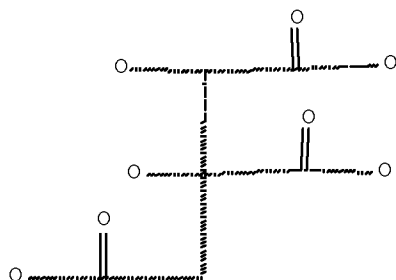
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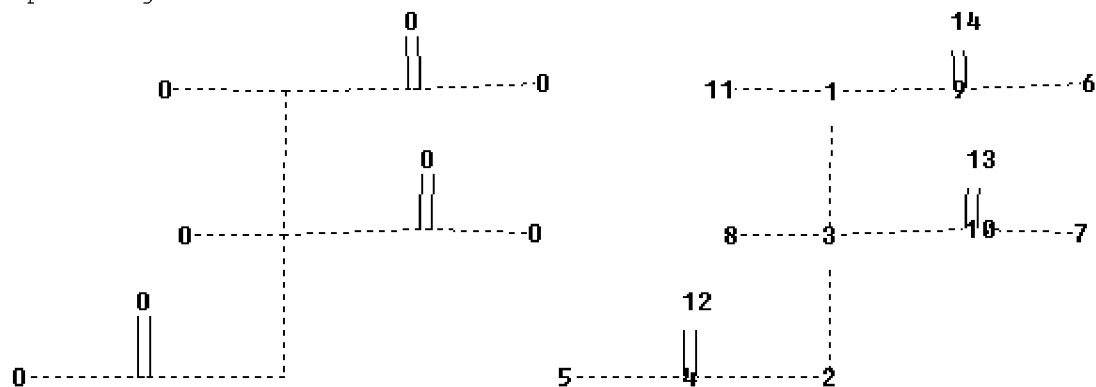
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L18 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L3.str



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ring/chain nodes :

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chain bonds :

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ring/chain bonds :

1-3 1-9 2-3 2-4 3-10 4-5 6-9 7-10

exact/norm bonds :

1-3 1-9 1-11 2-3 2-4 3-8 3-10 4-5 4-12 6-9 7-10 9-14 10-13

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS

10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

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L20      238 SEA FILE=REGISTRY SSS FUL L18
L22      418 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20
L24      99 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND 17/SC, SX
L25      54 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L24 AND (AY<2004 OR PY<2004
OR PRY<2004)
L26      12650 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "DIETARY SUPPLEMENTS"+OLD, UF/C
T
L27      11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L26
L28      84058 SEA FILE=HCAPLUS ABB=ON  PLU=ON  BEVERAGES+OLD, NT/CT
L29      16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L28
L30      23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L27 OR L29
L33      28452 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (DIET? OR BEVERAGE? OR FOOD?)
(W) SUPPLEM?
L34      12 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L25 AND L33
L35      24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30 OR L34

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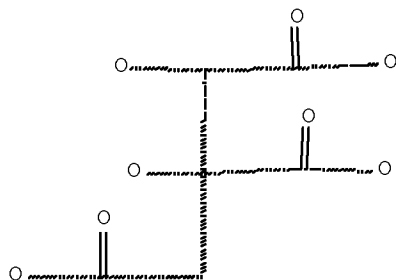
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(FILE 'AGRICOLA, MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:57:39 ON 14 MAR 2008)

L50 32 S L49 AND (AY<2004 OR PY<2004 OR PRY<2004)

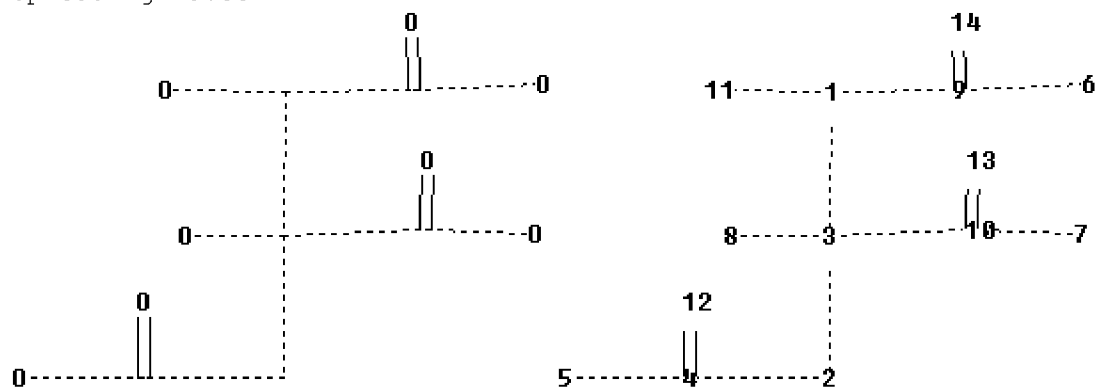
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L18 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L3.str



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chain nodes :
8 11 12 13 14
ring/chain nodes :
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chain bonds :
1-11 3-8 4-12 9-14 10-13
ring/chain bonds :
1-3 1-9 2-3 2-4 3-10 4-5 6-9 7-10
exact/norm bonds :
1-3 1-9 1-11 2-3 2-4 3-8 3-10 4-5 4-12 6-9 7-10 9-14 10-13

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Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

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L20          238 SEA FILE=REGISTRY SSS FUL L18
L33          28452 SEA FILE=HCAPLUS ABB=ON PLU=ON (DIET? OR BEVERAGE? OR FOOD?)
              (W) SUPPLEM?
L39          86 SEA FILE=AGRICOLA ABB=ON PLU=ON L20
L42          5 SEA FILE=AGRICOLA ABB=ON PLU=ON L39 AND L33
L43          73 SEA FILE=BIOSIS ABB=ON PLU=ON L20
L44          11 SEA FILE=BIOSIS ABB=ON PLU=ON L43 AND L33
L45          117 SEA FILE=MEDLINE ABB=ON PLU=ON L20
L46          10 SEA FILE=MEDLINE ABB=ON PLU=ON L45 AND L33
L47          183 SEA FILE=EMBASE ABB=ON PLU=ON L20
L48          38 SEA FILE=EMBASE ABB=ON PLU=ON L47 AND L33
L49          64 SEA L42 OR L44 OR L46 OR L48
L50          32 SEA L49 AND (AY<2004 OR PY<2004 OR PRY<2004)

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=> dup rem 135 150
FILE 'HCAPLUS' ENTERED AT 12:05:46 ON 14 MAR 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE 'AGRICOLA' ENTERED AT 12:05:46 ON 14 MAR 2008

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FILE 'MEDLINE' ENTERED AT 12:05:46 ON 14 MAR 2008

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FILE 'BIOSIS' ENTERED AT 12:05:46 ON 14 MAR 2008
Copyright (c) 2008 The Thomson Corporation

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FILE 'EMBASE' ENTERED AT 12:05:46 ON 14 MAR 2008
Copyright (c) 2008 Elsevier B.V. All rights reserved.
PROCESSING COMPLETED FOR L35
PROCESSING COMPLETED FOR L50
L60          51 DUP REM L35 L50 (5 DUPLICATES REMOVED)
              ANSWERS '1-24' FROM FILE HCAPLUS
              ANSWER '25' FROM FILE AGRICOLA
              ANSWERS '26-31' FROM FILE MEDLINE
              ANSWERS '32-34' FROM FILE BIOSIS
              ANSWERS '35-51' FROM FILE EMBASE

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=> d 160 1-24 ibib ed abs hitstr hitind; d 160 25-51 ibib ab hitind

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10/541828

L60 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:939403 HCAPLUS Full-text  
 DOCUMENT NUMBER: 147:285179  
 TITLE: Oral gel semisolid drug delivery systems for drug and  
 nutritional supplement functional ingredients  
 INVENTOR(S): Farber, Michael; Farber, Jonathan  
 PATENT ASSIGNEE(S): Can.  
 SOURCE: U.S. Pat. Appl. Publ., 41pp., Cont.-in-part of U.S.  
 Ser. No. 110,848.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2007196496	A1	20070823	US 2006-584748	20061023 <--
WO 2003088755	A1	20031030	WO 2003-CA411	20030325 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2004237663	A1	20041202	US 2003-416547	20030613 <--
US 7067150	B2	20060627		
US 2005208141	A1	20050922	US 2005-110848	20050421 <--
PRIORITY APPLN. INFO.:			US 2002-372438P	P 20020416 <--
			WO 2003-CA411	W 20030325 <--
			US 2003-416547	A3 20030613 <--
			US 2005-110848	A2 20050421

ED Entered STN: 23 Aug 2007

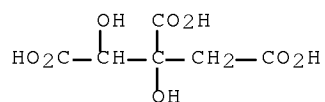
AB Oral gel delivery systems are provided that comprise an ingestible matrix within which one or more functional ingredients are substantially uniformly and completely dispersed and in which degradation of the functional ingredient(s) is minimized or eliminated. The matrix of the delivery systems comprises a carbohydrate component that comprises one or more carbohydrates that exhibit good moisture binding and low gelatinization temperature; a sugar component comprising one or more sugars, sugar syrups and/or sugar alcs.; a hydrocolloid component, and a solvent component comprising one or more polyhydric alcs. The delivery systems can be formulated to comprise a range of functional ingredients including various drugs and nutritional supplements. Thus, delivery system for creatine and dimethylglycine comprised (in wt%): glycerol 14.57, propylene glycol 5.30, creatine monohydrate 11.71, corn syrup 31.79, sucralose 0.04, modified starch 2.65, potassium citrate 2.15, dimethylglycine 1.67, high fructose corn syrup 9.27, water 14.57, gelatine 100 bloom type B 1.32, gelatine 250 bloom type A 3.97, gellan 0.32, coloring agent 0.21, flavor 0.45.

IT 6205-14-7

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (oral gel semisolid drug delivery systems for drug and nutritional supplement functional ingredients)

RN 6205-14-7 HCAPLUS

CN Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)



INCL 424488000; 514060000  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 17  
 IT Anabolic agents  
 Antacids  
 Anti-inflammatory agents  
 Antianginal agents  
 Antiarrhythmics  
 Antiasthmatics  
 Antibiotics  
 Anticholesteremic agents  
 Anticoagulants  
 Anticonvulsants  
 Antidepressants  
 Antidiabetic agents  
 Antidiarrheals  
 Antiemetics  
 Antihistamines  
 Antihypertensives  
 Antihypotensives  
 Antimigraine agents  
 Antiobesity agents  
 Antioxidants  
 Antipsychotics  
 Antipyretics  
 Antithyroid agents  
 Antitumor agents  
 Antitussives  
 Antiviral agents  
 Citrus aurantium  
 Coloring materials  
 Decongestants  
 Dietary fiber  
 Dietary supplements  
 Dissolution  
 Diuretics  
 Drug bioavailability  
 Expectorants  
 Flavor  
 Fungicides  
 Gastrointestinal agents  
 Human  
 Humidity  
 Hydrocolloids  
 Hypnotics and Sedatives  
 Jujube  
 Laxatives  
 Lycium barbarum  
 Melting point  
 Micronutrients  
 Muscle relaxants

Nervous system stimulants  
 Neuromuscular blocking agents  
 Oral drug delivery systems  
 Pharmaceutical gels  
 Pharmaceutical semisolids  
 Pharmacokinetics  
 Probiotics  
 Prokinetic agents  
 Psychotropics  
 Sour orange  
 Stability  
 Tocolytic agents  
 Tranquilizers  
 Vasoconstrictors  
 Vasodilators  
 Ziziphus

(oral gel semisolid drug delivery systems for drug and nutritional supplement functional ingredients)

IT 50-81-7, Ascorbic acid, biological studies 53-86-1, Indomethacin  
 56-69-9, 5-Hydroxytryptophan 56-81-5, Glycerol, biological studies  
 56-85-9, Glutamine, biological studies 56-87-1, Lysine, biological  
 studies 57-00-1D, Creatine, magnesium chelate 57-55-6, Propylene  
 glycol, biological studies 58-08-2, Caffeine, biological studies  
 59-43-8, Vitamin B1, biological studies 59-67-6, 3-Pyridinecarboxylic  
 acid, biological studies 60-18-4, Tyrosine, biological studies  
 61-90-5, Leucine, biological studies 62-49-7, Choline 63-68-3,  
 Methionine, biological studies 63-91-2, Phenylalanine, biological  
 studies 67-71-0, Methylsulfonylmethane 68-19-9, Vitamin B12 71-00-1,  
 Histidine, biological studies 72-18-4, Valine, biological studies  
 72-19-5, Threonine, biological studies 73-32-5, Isoleucine, biological  
 studies 74-79-3, Arginine, biological studies 74-79-3D, Arginine, Zinc  
 chelate 83-88-5, Vitamin B2, biological studies 93-14-1, Guaifenesin  
 98-92-0, Vitamin B3 107-35-7, Taurine 107-43-7, Trimethylglycine  
 117-39-5, Quercetin 298-14-6, Potassium bicarbonate 303-98-0, Coenzyme  
 Q10 305-84-0, L-Carnosine 372-75-8, Citrulline 471-34-1, Calcium  
 carbonate, biological studies 472-61-7, Astaxanthin 527-09-3  
 541-15-1, L-Carnitine 585-88-6, Maltitol 814-80-2, Calcium lactate  
 994-36-5, Sodium citrate 1200-22-2,  $\alpha$ -Lipoic acid 1309-42-8,  
 Magnesium hydroxide 1310-58-3, Potassium hydroxide, biological studies  
 1406-16-2, Vitamin D 1406-18-4, Vitamin E 1839-11-8, Conjugated  
 Linoleic acid 3416-24-8D, Glucosamine, salts 4468-02-4, Zinc gluconate  
 6205-14-7 7235-40-7,  $\beta$ -Carotene 7440-47-3D, Chromium,  
 chelate 7487-88-9, Magnesium sulfate, biological studies 7632-05-5,  
 Sodium phosphate 7664-38-2, Phosphoric acid, biological studies  
 7778-49-6, Potassium citrate 7785-87-7, Manganese sulfate 8050-81-5,  
 Simethicone 8059-24-3, Vitamin B6 9000-69-5, Pectin 9004-34-6,  
 Cellulose, biological studies 9005-25-8, Starch, biological studies  
 9005-80-5, Inulin 9007-28-7, Chondroitin sulfate 10043-83-1, Magnesium  
 phosphate 13115-71-4D, magnesium complex 14124-67-5, Selenite  
 15687-27-1, Ibuprofen 16068-46-5, Potassium phosphate 21645-51-2,  
 Aluminum hydroxide, biological studies 68580-63-2, Octacosanol  
 71010-52-1, Kelcogel 121548-04-7, Gelucire 44/14 142804-65-7, Gellan  
 852660-06-1, Clarinol

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(oral gel semisolid drug delivery systems for drug and nutritional supplement functional ingredients)

L60 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:99289 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:175840

10/541828

TITLE: Spring water-based ready-to-drink beverage formulation  
containing an active ingredient  
INVENTOR(S): Hartigan, Matthew Anthony; O'Mara, Ann Marie; O'Mara,  
Brendan Joseph  
PATENT ASSIGNEE(S): Ire.  
SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005009147	A1	20050203	WO 2003-IE107	20030731 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003259532	A1	20050214	AU 2003-259532	20030731 <--
EP 1657984	A1	20060524	EP 2003-817624	20030731 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: WO 2003-IE107 A 20030731 <--

ED Entered STN: 04 Feb 2005

AB A ready-to-drink formulation in bottled form comprises still spring water, an active ingredient, one or more flavoring agents, one or more sweeteners and an organic acid, the formulation having a shelf-life in excess of six months. The formulations have excellent organoleptic properties and a shelf life which is generally in excess of twelve months, while at the same time acting as a vehicle for a range of active ingredients which have a functional effect. The active ingredient can be a combination of saccharide materials and salts which can be used by consumers to boost their energy levels throughout the day during normal work and recreation, but also in situations where extra energy is required, such as when engaging in strenuous activity, for example sporting activities. The active ingredient can also be potassium hydroxycitric acid, a known appetite suppressant, such that the formulation can have beneficial effects for those wishing to reduce their calorie intake and thus achieve weight loss. Thus, a formulation may include (kg/1000 L ready-to-drink): sodium benzoate 0.140, acesulfame K 0.060, citric acid 3.100, aspartame 0.190, manganese citrate 0.080, magnesium citrate 0.120, selenium 0.020, calcium citrate 0.340, plus flavors and spring water.

IT 27750-10-3, Hydroxycitric acid 185196-38-7

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(spring water-based ready-to-drink beverage formulation containing active ingredient)

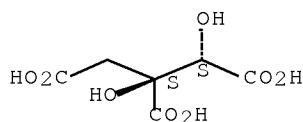
RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



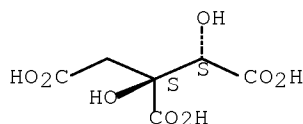
10/541828



RN 185196-38-7 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, potassium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x K

IC ICM A23L002-00

ICS A23L002-38; A23L002-58; A23L002-60; A23L002-68; A23L002-44;  
A23L001-236; A23L001-304; A23L001-305

CC 17-13 (Food and Feed Chemistry)

Section cross-reference(s): 18

IT Beverages

(sports; spring water-based ready-to-drink beverage formulation containing active ingredient)

IT Appetite depressants

Beverages

Flavor

Flavoring materials

Food preservatives

Spring waters

Sweetening agents

(spring water-based ready-to-drink beverage formulation containing active ingredient)

IT 50-81-7, Ascorbic acid, biological studies 56-85-9, Glutamine, biological studies 57-48-7, Fructose, biological studies 58-08-2, Caffeine, biological studies 63-42-3, Lactose 77-92-9, Citric acid, biological studies 471-34-1, Calcium carbonate, biological studies 532-32-1, Sodium benzoate 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-70-2, Calcium, biological studies 7779-25-1, Magnesium citrate 7782-49-2, Selenium, biological studies 9050-36-6, Maltodextrin 10024-66-5, Manganese citrate 22839-47-0, Aspartame 27750-10-3, Hydroxycitric acid 55589-62-3, Acesulfame potassium 185196-38-7

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(spring water-based ready-to-drink beverage formulation containing active ingredient)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

10/541828

ACCESSION NUMBER: 2005:71065 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:162565  
TITLE: Stabilized anthocyanin extract from *Garcinia indica*  
INVENTOR(S): Bhaskaran, Sunil; Mehta, Sevanti  
PATENT ASSIGNEE(S): Unibar Corporation, USA  
SOURCE: PCT Int. Appl., 16 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005007088	A2	20050127	WO 2004-US21305	20040701 <--
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:				
BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,				
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,				
SN, TD, TG				
US 2006230983	A1	20061019	US 2006-563050	20060501 <--
US 7261769	B2	20070828		
PRIORITY APPLN. INFO.:			US 2003-484781P	P 20030703 <--
			WO 2004-US21305	W 20040701

ED Entered STN: 27 Jan 2005

AB A method of making a red pigmented composition is disclosed which includes (a) preparing an aqueous extract of *Garcinia indica* fruit comprising at least one red colorant; (b) treating the extract with a cation exchange resin so that one or more red colorant assoc. with the resin; (c) eluting the red colorant from the resin with an eluting solution containing one or more alc. such as methanol, ethanol and isopropanol and one or more acid such as hydrochloric acid, citric acid, acetic acid, tartaric acid and hydroxy citric acid to yield a red-colored eluate; (d) collecting and concentrating the eluate to provide a concentrate; and (e) adding an antioxidant agent and/or placing the concentrate in an aseptic container in a non-oxidizing atmospheric A combination comprising the resulting stabilized *Garcinia* extract in aseptic packaging in a non-oxidizing atmospheric is also disclosed, along with methods of use. For example, 1 kg of *G. indica* was extracted with demineralized water, the solution was passed through a column containing 500 mL of Amberlite IRA 120, Dowex 50 W x 8, Tulsion T-42 MP, or Tulsion T-72 MP, and the eluates were monitored for color. When the color passes unabsorbed, the column operation was stopped, the column was washed with demineralized water, and eluted with 8% methanolic hydrochloric acid. The eluent was collected and concentrated under vacuum at < 40° to provide about 8 g of concentrate The concentrate was stabilized by adding 50 to 80 mg of the extract of *Occimum sanctum* as an antioxidant to promote color retention by the concentrate The red extract comprised two primary components, cyanidin-3-glucoside (approx. 61%) and cyanidin-3-sambubioside (approx. 35%). The anthocyanin composition prepared showed 85.1% superoxide scavenging activity, 71.6% DPPH radical scavenging activity, and 31.7% tyrosinase inhibitory activity.

IT 27750-10-3, Hydroxycitric acid

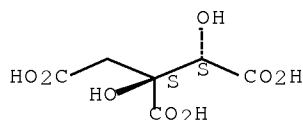
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of stabilized anthocyanin extract from *Garcinia indica*)

10/541828

RN 27750-10-3 HCAPLUS  
CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K  
CC 63-4 (Pharmaceuticals)  
Section cross-reference(s): 17, 62  
IT Antioxidants  
Beverages  
Coloring materials  
Cosmetics  
Dietary supplements  
Drug delivery systems  
Food  
Pigments, biological  
Radical scavengers  
(preparation and uses of stabilized anthocyanin extract from *Garcinia indica*)  
IT 64-17-5, Ethanol, processes 64-19-7, Acetic acid, processes 67-56-1, Methanol, processes 67-63-0, Isopropanol, processes 77-92-9, Citric acid, processes 87-69-4, Tartaric acid, processes 7647-01-0, Hydrochloric acid, processes 11119-67-8, Dowex 50W-X8 27750-10-3, Hydroxycitric acid 77238-33-6, Amberlite IRA 120 161544-81-6, Tulsion T 42MP 831226-47-2, Tulsion T 72MP  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)  
(preparation of stabilized anthocyanin extract from *Garcinia indica*)

L60 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:394526 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:417212  
TITLE: Composition and method for reducing lipid storage  
INVENTOR(S): McCleary, Edward Larry; Forest, Carl A.; McCleary, Christine  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 890,067.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 12  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005095233	A1	20050505	US 2004-987108	20041112 <--
US 2002132219	A1	20020919	US 2000-749584	20001228 <--
US 6579866	B2	20030617		
US 2004043013	A1	20040304	US 2003-462958	20030617 <--
US 2005025812	A1	20050203	US 2003-616674	20030710 <--
US 2005002992	A1	20050106	US 2004-890067	20040712 <--

10/541828

WO 2006053217 A1 20060518 WO 2005-US40931 20051112  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

US 2000-749584 A2 20001228 <--  
US 2003-462958 A2 20030617 <--  
US 2003-616674 A2 20030710 <--  
US 2003-520466P P 20031114 <--  
US 2004-536286P P 20040113  
US 2004-890067 A2 20040712  
US 2004-986924 A 20041112  
US 2004-987108 A 20041112  
US 2005-111542 A 20050421

ED Entered STN: 09 May 2005

AB An orally or parenterally administered composition for reducing the storage of lipids in a human comprises: an effective amount of hydroxycitric acid; an effective amount of carnitine; an effective amount of biotin; an effective amount of one or more gluconeogenic substrates selected from the group consisting of: aspartate, lactate, glycerol, and a gluconeogenic amino acid or alphaketo analog thereof; an effective amount of eicosapentanoic acid; and an effective amount of one or more ingredients selected from the group consisting of: medium chain triglycerides with fatty acid backbones containing 6 to 14 carbon atoms or their individual fatty acid analogs or metabolic precursors, sesame seeds or derivative products, sesamin and/or its epimer episamin, caffeine, forskolin, 7-keto dehydroepiandrosterone, green tea extract containing epigallocatechingallate, capsaicum, and 5-hydroxytryptophan. The supplement may also be combined with a food, beverage, condiment, spice or salad dressing base to provide a food, beverage, condiment, spice or salad dressing product designed to reduce lipid storage. A chart illustrating the food, beverage, condiment, spice, and sald dressing product according to invention and method of making them is presented (no data).

IT 27750-10-3, Hydroxycitric acid

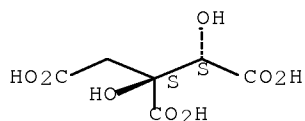
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(composition and method for reducing lipid storage)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentadic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K038-43

ICS A61K031-555; A61K031-4415; A61K031-4188; A61K031-198

INCL 424094100; 514383000; 514554000; 514561000; 514574000; 514350000;

- 514184000; 514400000; 514423000; 514560000
- CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 17
- IT Beverages  
(carbonated; composition and method for reducing lipid storage)
- IT Alcoholic beverages  
Allium cepa  
Allium sativum  
Armoracia lapathifolia  
Avena sativa  
Beverages  
Bread  
Butter  
Candy  
Capsicum  
Cereal (grain)  
Cheese  
Chocolate  
Cinnamon (spice)  
Coffea  
Dietary supplements  
Fruit  
Fruit and vegetable juices  
Glycine max  
Gymnema sylvestre  
Human  
Ice cream  
Jams and Jellies  
Milk  
Pasta  
Peanut butter  
Pickles  
Potato chips  
Soups  
Soybean curd  
Syrups (sweetening agents)  
Tea products  
Tomato products  
Vegetable  
Vinegar  
Wheat flour  
Whey  
(composition and method for reducing lipid storage)
- IT Beverages  
(sports; composition and method for reducing lipid storage)
- IT 50-21-5, biological studies 51-35-4, Hydroxyproline 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-81-5, Glycerol, biological studies 56-84-8, L-Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-89-3, Cystine, biological studies 58-08-2, Caffeine, biological studies 58-85-5, Biotin 63-68-3, Methionine, biological studies 65-23-6, Pyridoxine 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 74-79-3, Arginine, biological studies 133-03-9, Episesamin 147-85-3, Proline, biological studies 303-98-0, Coenzyme Q10 506-38-7, Pentacosanoic acid 541-15-1, Carnitine 566-19-8, 7-Keto dehydroepiandrosterone 607-80-7, Sesamin 989-51-5, Epigallocatechingallate 1200-22-2,  $\alpha$ Lipoic acid 1399-64-0, Gymnemic acid 4350-09-8, 5-Hydroxytryptophan 7439-95-4, Magnesium, biological studies 7440-47-3, Chromium, biological

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studies 7647-14-5, Salt, biological studies 25378-27-2,  
Eicosapentaenoic acid 27750-10-3, Hydroxycitric acid  
66575-29-9, Forskolin 121250-47-3, Conjugated linoleic acid  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological  
study); USES (Uses)  
(composition and method for reducing lipid storage)

L60 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:219534 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:285215  
TITLE: Process for preparing water soluble diterpenes and  
their applications  
INVENTOR(S): Majeed, Muhammed; Kumar, Arvind; Nagabhushanam,  
Kalyanam; Prakash, Subbalakshmi  
PATENT ASSIGNEE(S): Sami Labs Limited, India  
SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005051483	A1	20050310	US 2003-605086	20030908 <--
US 6960300	B2	20051101		
IN 2004CH00212	A	20051202	IN 2004-CH212	20040310 <--
AU 2004272005	A1	20050324	AU 2004-272005	20040902 <--
CA 2537820	A1	20050324	CA 2004-2537820	20040902 <--
WO 2005025500	A2	20050324	WO 2004-US28644	20040902 <--
WO 2005025500	A3	20050609		
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RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
BR 2004013957	A	20061031	BR 2004-13957	20040902 <--
EP 1718568	A2	20061108	EP 2004-783024	20040902 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1882508	A	20061220	CN 2004-80028804	20040902 <--
JP 2007505040	T	20070308	JP 2006-525448	20040902 <--
US 2005284812	A1	20051229	US 2005-215040	20050831 <--
MX 2006PA02684	A	20070315	MX 2006-PA2684	20060308 <--
PRIORITY APPLN. INFO.:			US 2003-605086	A 20030908 <--
			WO 2004-US28644	W 20040902

ED Entered STN: 11 Mar 2005

AB Aqueous solns. of diterpenes such as Forskolin, its congeners, analogs and  
derivs., up to approx. 6% concentration, are prepared using suitably  
substituted cyclodextrin as a solubilizing agents. In the absence of  
cyclodextrin, some diterpenes such as Forskolin are soluble in water only to  
concns. of about 0.001%. Such aqueous solns. find applications in topical and  
systemic use, as pharmaceutical, cosmetic, nutritional prepsns. containing  
diterpenes such as Forskolin and congeners. Thus forskolin (98.5 % assay, 25

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mg) was added to 1 mL water containing in the dissolved state 500 mg hydroxypropyl f cyclodextrin, HPBCD, (50%); the suspension was agitated at 75 RPM in an isothermal shaker for 60 h at temperature 30°C. Resulting solution was filtered through 0.45 µm nylon filter and analyzed for the content of Forskolin by HPLC 1.33 mg/mL or 0.133 % w/v.

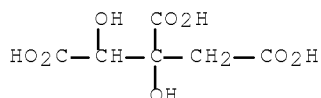
IT 6205-14-7, Hydroxycitric acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination with; process for preparing water soluble diterpenes and their applications)

RN 6205-14-7 HCAPLUS

CN Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)



IC ICM B01D011-00

INCL 210634000; X42-447.5; X42-440.0; X21-080.6

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 17, 62

IT Dietary supplements

(beverages; process for preparing water soluble diterpenes and their applications)

IT 6205-14-7, Hydroxycitric acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination with; process for preparing water soluble diterpenes and their applications)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:132356 HCAPLUS Full-text

DOCUMENT NUMBER: 142:218092

TITLE: Process for addition of a nutraceutical to a beverage

INVENTOR(S): Nickolas, Steve; Stewart, Andrew

PATENT ASSIGNEE(S): Enhanced Beverages, Llc, USA

SOURCE: U.S., 9 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6855358	B1	20050215	US 2002-286345	20021101 <--
US 2005129816	A1	20050616	US 2005-48157	20050131 <--
PRIORITY APPLN. INFO.:			US 2002-286345	A1 20021101 <--

ED Entered STN: 16 Feb 2005

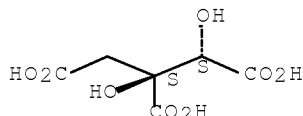
AB The present invention discloses a method of introducing a nutraceutical to a beverage comprising treating a beverage with a primary sterilizing agent, such as ozonation, filling a container with said beverage, adding an amount of a nutraceutical and sealing said container. The present invention allows for the production of a suitably sterile beverage without a substantial loss in

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the activity, or change in the structure, of a nutraceutical. Recommended nutraceuticals are appetite suppressant-antiobesity agents such as forskolin and hydroxycitric acid/CITRIN compds.

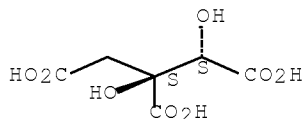
IT 27750-10-3, Hydroxycitric acid 27750-10-3D,  
Hydroxycitric acid, salts  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(process for addition of a nutraceutical to a beverage)  
RN 27750-10-3 HCAPLUS  
CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 27750-10-3 HCAPLUS  
CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23B004-24  
ICS A23L002-44  
INCL 426335000; 426312000; 426316000; 426320000; 426321000; 426324000;  
426590000  
CC 17-13 (Food and Feed Chemistry)  
Section cross-reference(s): 18, 63  
IT Antiobesity agents  
Appetite depressants  
Beverages  
Dietary supplements  
Flavor  
Food packaging materials  
Food processing  
Packaging process  
Sterilization and Disinfection  
(process for addition of a nutraceutical to a beverage)  
IT 27750-10-3, Hydroxycitric acid 27750-10-3D,  
Hydroxycitric acid, salts 843614-31-3, Citrin K  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(process for addition of a nutraceutical to a beverage)  
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

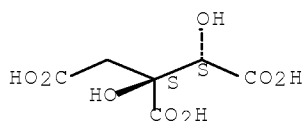


10/541828

ACCESSION NUMBER: 2007:182435 HCAPLUS Full-text  
DOCUMENT NUMBER: 146:420942  
TITLE: Hydroxycitric acid concentrate  
INVENTOR(S): Bhandari, Ashok Kumar; Ravindranath, Bhagavathula;  
Balasubramanyam, K.; Moffett, Alex  
PATENT ASSIGNEE(S): Vittal Mallaya Scientific Research Foundation, India;  
Renaissance Herbs, Inc.  
SOURCE: Indian Pat. Appl., 17pp.  
CODEN: INXXBQ  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 1996MA00648	A	20050304	IN 1996-MA648	19960418 <--
PRIORITY APPLN. INFO.:			IN 1996-MA648	19960418 <--
ED Entered STN: 19 Feb 2007				
AB A hydroxycitric acid concentrate (23-54% by weight free hydroxycitric acid, 6-20% by weight hydroxycitric acid lactone, 0.001-8% by weight citric acid, and 32-70% by weight water) is extracted from Garcinia rind. The free hydroxycitric acid, lactone, and citric acid constitute 94-99% by weight of the total solutes dissolved in the water. Food products containing the concentrate may include a snack or a beverage.				
IT 27750-10-3P, Hydroxycitric acid				
RL: FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)				
(Garcinia-derived hydroxycitrate concentrate for use in food and beverages)				
RN 27750-10-3 HCAPLUS				
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).



IC ICM C07C059-265  
CC 17-6 (Food and Feed Chemistry)  
IT Beverages  
Dietary fiber  
Extraction  
Food additives  
(Garcinia-derived hydroxycitrate concentrate for use in food and beverages)  
IT 77-92-9P, Citric acid, biological studies 27750-10-3P,  
Hydroxycitric acid 27750-13-6P  
RL: FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(Garcinia-derived hydroxycitrate concentrate for use in food and beverages)

L60 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:1015841 HCAPLUS Full-text  
DOCUMENT NUMBER: 142:5805  
TITLE: A novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary

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additive for promoting weight loss.  
 INVENTOR(S): Philip, Samuel; Somasundaram, Saravanan; Meyyappan, Thangaraj  
 PATENT ASSIGNEE(S): Indfrag Limited, India  
 SOURCE: PCT Int. Appl., 16 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004100682	A1	20041125	WO 2003-IN192	20030519 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003241151	A1	20041203	AU 2003-241151	20030519 <--
US 2004259937	A1	20041223	US 2004-822867	20040413 <--
US 7214823	B2	20070508		

PRIORITY APPLN. INFO.: WO 2003-IN192 A 20030519 <--

ED Entered STN: 25 Nov 2004

AB The present invention relates to a novel composition of complex metal salt of garcinia acid comprising (-)-hydroxycitric acid (HCA), the lactone of HCA and citric acid, and a mixture of either a penta (5), tetra (4), triple (3) or double (2) metal ions, for use in dietary supplements, nutraceuticals, food products and beverages to promote weight loss. In the said composition the concentration of HCA is 40-75 %, the Lactone of HCA 0.1-30 % and citric acid 1-5 %, the rest being the metal ions selected from sodium, potassium, calcium, magnesium and/or zinc. The present invention also relates to the use of said composition in dietary supplements, nutraceuticals, food products and beverages, to promote weight loss and a process for preparing the said composition

IT 27750-10-3P, (-)-Hydroxycitric acid

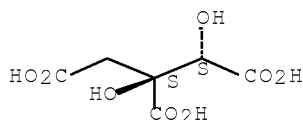
RL: FFD (Food or feed use); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentadic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 27750-10-3DP, Garcinia acid, metal salts

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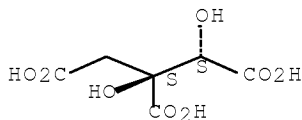
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L002-78

CC 17-6 (Food and Feed Chemistry)  
Section cross-reference(s): 18, 63

IT Antiobesity agents  
Dietary supplements  
Food additives

(a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

IT Beverages  
(additives; a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

IT 27750-10-3P, (-)-Hydroxycitric acid  
RL: FFD (Food or feed use); PUR (Purification or recovery); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

IT 7439-95-4DP, Magnesium, garcinia acid salts 7440-09-7DP, Potassium, garcinia acid salts 7440-23-5DP, Sodium, garcinia acid salts 7440-66-6DP, Zinc, garcinia acid salts 7440-70-2DP, Calcium, garcinia acid salts 27750-10-3DP, Garcinia acid, metal salts  
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(a novel complex metal salt of garcinia acid, a process for preparing the same and use thereof as a dietary additive for promoting weight loss.)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:999690 HCAPLUS Full-text

DOCUMENT NUMBER: 141:416047

TITLE: Preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid

INVENTOR(S): Gokaraju, Ganga Raju; Gokaraju, Rama Raju; Gottumukkala, Venkata Subbaraju; Pratha, Sridhar

PATENT ASSIGNEE(S): Laila Impex, India

SOURCE: U.S. Pat. Appl. Publ., 3 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004229953	A1	20041118	US 2004-803986	20040319 <--
US 6875891	B2	20050405		

PRIORITY APPLN. INFO.: IN 2003-MA402 A 20030512 &lt;--

ED Entered STN: 19 Nov 2004

AB This invention relates to a novel process for preparing highly water soluble alkaline earth metal and alkali metal double salts of hydroxycitric acid (HCA). These salts are practically odorless and have negligible taste and are therefor useful as nutraceuticals. Aqueous extract of the fruits belonging to Garcinia species are treated to precipitate its alkaline earth metal salts such as the calcium salt. This sparingly soluble product is dissolved in alkali hydroxide and the pH of the solution is adjusted by adding purified extract of the fruit rind. Ca/Na or Ca/K double salts are particularly useful. An aqueous extract of Garcinia fruit is treated with Ca(OH)<sub>2</sub> at room temperature to give the Ca salts of HCA and this salt converted to the Ca K double salt of HCA by treatment with KOH solution

IT 27750-10-3, (-)-Hydroxycitric acid

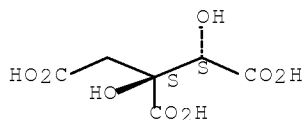
RL: CPS (Chemical process); NPO (Natural product occurrence); PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PROC (Process); RACT (Reactant or reagent)

(preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 449158-84-3P

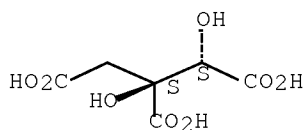
RL: FFD (Food or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid)

RN 449158-84-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, calcium potassium salt (1:?:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

●x K

IT 213385-58-1P

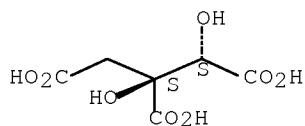
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid)

RN 213385-58-1 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, calcium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

IC ICM A61K031-19

ICS C07C059-265

INCL 514574000; X56-258.4

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 17

IT Antiobesity agents

Dietary supplements

Drug delivery systems

Garcinia atroviridis

Garcinia cambogia

Garcinia indica

(preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid)

IT 27750-10-3, (-)-Hydroxycitric acid

RL: CPS (Chemical process); NPO (Natural product occurrence); PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); PROC (Process); RACT (Reactant or reagent)

(preparation of highly water soluble alkali and alkaline earth metal double salts of hydroxycitric acid)

IT 449158-84-3P  
 RL: FFD (Food or feed use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of highly water soluble alkali and alkaline earth metal double salts  
 of hydroxycitric acid)  
 IT 213385-58-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of highly water soluble alkali and alkaline earth metal double salts  
 of hydroxycitric acid)  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:430456 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:412347  
 TITLE: Method for stable and controlled delivery of  
 (-)-hydroxycitric acid salts  
 INVENTOR(S): Clouatre, Dallas L.; Clouatre, Daniel E.; Dunn, James M.  
 PATENT ASSIGNEE(S): Glykon Technologies Group, LLC, USA  
 SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004101555	A1	20040527	US 2002-303117	20021123 <--
US 7189416	B2	20070313		

PRIORITY APPLN. INFO.: US 2002-303117 20021123 <--

ED Entered STN: 27 May 2004

AB Disclosed is a method for making the potassium, sodium and other hygroscopic salts of (-)-hydroxycitric acid and mixts. thereof workable by initial treatment with a desiccating agent, such as fumed silicon dioxide. These may be further rendered non-hygroscopic and non-reactive in acidic media via subsequent encasement in hydrophobic and acidophobic polymers. The calcium and magnesium salts of (-)-hydroxycitric acid likewise can be rendered nonreactive in acidic media. The resulting products are suitable for tableting, encapsulation and use in other dry media for weight loss, appetite suppression, improvements in fat metabolism and postprandial lipemia and other pharmaceutical purposes. Further, the products of this invention can be made nonreactive as components of acidic liquid drink mixes and snack bars and can be used in the production of controlled release administration formats.

IT 64913-19-5 132436-67-0 185196-38-7  
 213385-58-1

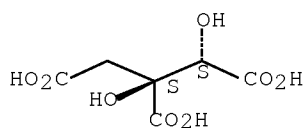
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (processing (-)-hydroxycitric acid salts using desiccants and polymers for stabilization and oral delivery for improving metabolic functions)

RN 64913-19-5 HCAPLUS

CN Pentaric acid, 3-C-carboxy-2-deoxy-, sodium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

10/541828

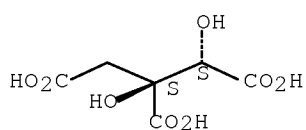


●x Na

RN 132436-67-0 HCAPLUS

CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

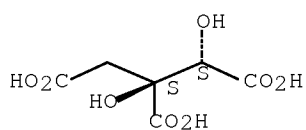


●x Mg

RN 185196-38-7 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, potassium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

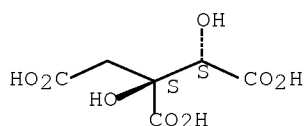


●x K

RN 213385-58-1 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, calcium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

IC ICM A61K031-724  
 ICS A61K009-20; A61K009-16; A61K009-50  
 INCL 424465000; X51-4 5.8; X42-443.9  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 17  
 IT Appetite depressants  
 Beverages  
 (oral delivery of stabilized (-)-hydroxycitric acid salts for improving metabolic functions)  
 IT 79-10-7D, Acrylic acid, derivs., polymers 7631-86-9, Silicon dioxide, biological studies 9004-38-0, Cellulose acetate phthalate 9004-57-3, Ethyl cellulose 12619-70-4, Cyclodextrin 12619-70-4D, Cyclodextrin, hydroxypropyl ethers 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 52907-01-4, Cellulose acetate trimellitate 53237-50-6 64913-19-5 98723-86-5, Hydroxymethyl cellulose phthalate 132436-67-0 185196-38-7 213385-58-1  
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (processing (-)-hydroxycitric acid salts using desiccants and polymers for stabilization and oral delivery for improving metabolic functions)  
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:992796 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:394591  
 TITLE: Antidiabetic foods and beverages  
 INVENTOR(S): Goto, Ayako  
 PATENT ASSIGNEE(S): Fancl Corporation, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004321171	A	20041118	JP 2004-7050	20040114 <--
HK 1061146	A2	20040813	HK 2004-102445	20040403 <--
CN 1535605	A	20041013	CN 2004-10033725	20040409 <--
PRIORITY APPLN. INFO.:			JP 2003-108492	A 20030411 <--
			JP 2004-7050	A 20040114

ED Entered STN: 19 Nov 2004

AB The antidiabetic foods and beverages contain hydroxycitric acid or salts ornithine or salts, or precursors of the hydroxycitric acid such as lysine, and ornithine. Addnl., coenzyme Q10, vitamin C and B6, niacin, iron,



10/541828

synephrine, ginger (*Zingiber officinale*), *Capsicum annuum*, etc., were added into the antidiabetic foods and beverages.

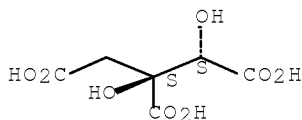
IT 27750-10-3, Hydroxycitric acid 27750-10-3D,  
Hydroxycitric acid, salts

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(antidiabetic foods and beverages containing hydroxycitric acid and  
ornithine)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

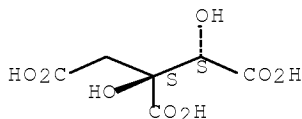
Absolute stereochemistry. Rotation (-).



RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L001-30

ICS A23L001-302; A23L001-305; A23L002-52

CC 17-14 (Food and Feed Chemistry)

IT Beverages

(health; antidiabetic foods and beverages containing hydroxycitric acid and  
ornithine)

IT 50-81-7, Vitamin C, biological studies 56-87-1, L-Lysine, biological  
studies 56-87-1D, L-Lysine, salts 59-43-8, Vitamin B1, biological  
studies 59-67-6, Niacin, biological studies 63-68-3, L-Methionine,  
biological studies 63-68-3D, L-Methionine, salts 70-26-8, Ornithine  
70-26-8D, Ornithine, salts 303-98-0, CoQ10 7439-89-6, Iron, biological  
studies 8059-24-3, Vitamin B6 16589-24-5, Synephrine  
27750-10-3, Hydroxycitric acid 27750-10-3D,  
Hydroxycitric acid, salts

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(antidiabetic foods and beverages containing hydroxycitric acid and  
ornithine)

L60 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:874983 HCAPLUS Full-text

DOCUMENT NUMBER: 139:363934

TITLE: Hydroxycitric acid salt composition for nutraceuticals

INVENTOR(S): Bhaskaran, Sunil; Mehta, Sevanti

PATENT ASSIGNEE(S): Unibar Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003207942	A1	20031106	US 2003-425428	20030429 <--
WO 2003092730	A1	20031113	WO 2003-US13173	20030429 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003225196	A1	20031117	AU 2003-225196	20030429 <--
PRIORITY APPLN. INFO.:			US 2002-376490P	P 20020430 <--
			WO 2003-US13173	W 20030429 <--

ED Entered STN: 07 Nov 2003

AB Disclosed is a hydroxycitric acid salt composition comprising calcium and potassium salts of hydroxycitric acid, preferably in a defined proportion which yields a very pure, stabilized preparation that is substantially tasteless for optimal use in a variety of foods items. The HCA salts are prepared by a process that includes treating an aqueous extract of Garcinia cambogia or Garcinia indica fruit with a liquid quaternizing agent such as a trialkylamine in which the alkyl groups are octyl, caprylyl, isooctyl, lauryl or decyl.

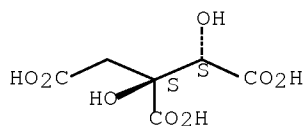
IT 64913-19-5 185196-38-7, D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, potassium salt 213385-58-1

RL: FFD (Food or feed use); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses) (hydroxycitric acid salt composition for nutraceuticals)

RN 64913-19-5 HCAPLUS

CN Pentamic acid, 3-C-carboxy-2-deoxy-, sodium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



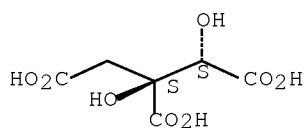
●x Na

RN 185196-38-7 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, potassium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

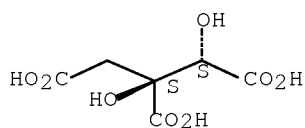
10/541828



RN 213385-58-1 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, calcium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 27750-10-3, Hydroxycitric acid

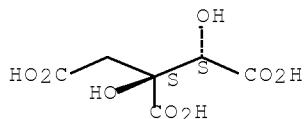
RL: FFD (Food or feed use); NPO (Natural product occurrence); RCT (Reactant); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or reagent); USES (Uses)

(hydroxycitric acid salt composition for nutraceuticals)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K031-194

ICS C07C059-265; C07C051-42

INCL 514574000; 424439000; 562580000; 562584000

CC 17-6 (Food and Feed Chemistry)

IT Dietary supplements

Garcinia cambogia

Garcinia indica

(hydroxycitric acid salt composition for nutraceuticals)

IT 64913-19-5 185196-38-7, D-erythro-Pentamic acid,

3-C-carboxy-2-deoxy-, potassium salt 213385-58-1

RL: FFD (Food or feed use); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
(hydroxycitric acid salt composition for nutraceuticals)

IT 27750-10-3, Hydroxycitric acid  
 RL: FFD (Food or feed use); NPO (Natural product occurrence); RCT  
 (Reactant); BIOL (Biological study); OCCU (Occurrence); RACT (Reactant or  
 reagent); USES (Uses)  
 (hydroxycitric acid salt composition for nutraceuticals)

L60 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:609887 HCAPLUS Full-text  
 DOCUMENT NUMBER: 139:148844  
 TITLE: Energy fitness water containing Garcinia citrate,  
 ribose, chromium and other nutrients.  
 INVENTOR(S): Choudhry, Muhammad S.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 4 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

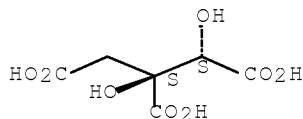
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003148016	A1	20030807	US 2002-67636	20020207 <--
PRIORITY APPLN. INFO.:			US 2002-67636	20020207 <--

ED Entered STN: 08 Aug 2003

AB A method of making an alternative bottled water comprising as main  
 ingredients, D-ribose, L-carnitine, coenzyme Q10, ATP, Taurine, Garcinia  
 cambogia, chromium polynicotinate, or chromium picolinate with or without L-  
 aspartic acid to provide cardiovascular fitness and overall phys. energy.  
 Said energy fitness water may also contain a non-nutritive or nutritive  
 sweetener, aroma and coloring. The bottled water prepared from these  
 ingredients has pH range from 3.5 to 7.0, dependent on processing and  
 packaging of the bottled water.

IT 27750-10-3  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (energy fitness water containing Garcinia citrate, ribose, chromium and  
 other nutrients)  
 RN 27750-10-3 HCAPLUS  
 CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23G003-00  
 INCL 426660000  
 CC 17-13 (Food and Feed Chemistry)  
 Section cross-reference(s): 18, 63  
 IT Beverages  
 (dietetic; energy fitness water containing Garcinia citrate, ribose,  
 chromium and other nutrients)  
 IT Beverages  
 (sports; energy fitness water containing Garcinia citrate, ribose, chromium  
 and other nutrients)

IT 50-69-1, D-Ribose 50-81-7, Vitamin C, biological studies 56-65-5,  
 5'-ATP, biological studies 56-84-8, L-Aspartic acid, biological studies  
 59-30-3, Folic acid, biological studies 68-19-9, Vitamin B12 107-35-7,  
 Taurine 303-98-0, Coenzyme Q10 541-15-1, L-Carnitine 7439-95-4,  
 Magnesium, biological studies 7440-09-7, Potassium, biological studies  
 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological  
 studies 7782-49-2, Selenium, biological studies 8059-24-3, Vitamin B6  
 14639-25-9 27750-10-3 55589-62-3, Acesulfame potassium  
 56038-13-2, Sucralose 156680-49-8, ChromeMate  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (energy fitness water containing Garcinia citrate, ribose, chromium and  
 other nutrients)

L60 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:97813 HCAPLUS Full-text

DOCUMENT NUMBER: 138:142498

TITLE: Preparation of sugar-free chewy products and  
 protein-based chewy products

INVENTOR(S): Cherukuri, Subraman Rao; Cantor, Stuart L.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 2003026826	A1	20030206	US 2001-24583	20011221 <--
PRIORITY APPLN. INFO.:			US 2001-308566P	P 20010731 <--

ED Entered STN: 07 Feb 2003

AB A sugar-free composition comprises a mixture of at least two polyols present  
 in an amount of 15-80% by weight, an emulsifier system present in an amount of  
 1.0-30% by weight, an active agent in an amount of 0.1-70% by weight, and  
 water in an amount of 0-15% by weight, with optional components comprising  
 colors, flavors and binders totaling 100%. A protein-based sugar-free  
 composition comprising a mixture of at least one protein and one polyol in an  
 amount of 20-99%, an emulsifier system in an amount of 0-30%, an active agent  
 in an amount of 0.1-70%, and water in an amount of 0-10% are disclosed. An  
 oral hygiene composition comprises the sugar-free composition and an  
 bioadhesive agent for improving oral hygiene. For example, a sugar-free base  
 was prepared by mixing 55% maltitol syrup (containing < 2% sorbitol) and 20%  
 sorbitol, 0.55%  $\kappa$ -carrageenan and 20% water and heating the mixture to about  
 240°F and a Brix of 87 to form a cooked mixture. The cooked mixture was cooled  
 to about 185-235°F. Sep. 8% partially hydrogenated soy and cottonseed oil,  
 1.4% lecithin, and 2.5 % mono- and diglycerides were mixed until homogeneous.  
 The fats were then mixed with 75% of the above cooled cooked mixture, and the  
 mixture was allowed to cool forming a sugar-free composition

IT 27750-10-3, Hydroxycitric acid

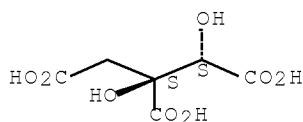
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of sugar-free and optionally protein-based chewable delivery  
 systems for drugs and nutraceuticals)

RN 27750-10-3 HCAPLUS

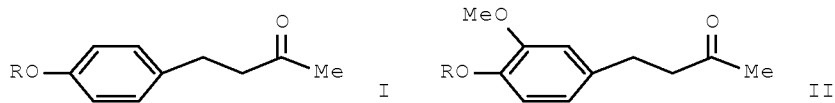
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A61K009-68  
ICS A61K035-78  
INCL 424440000; 424776000  
CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 17, 62  
IT Analgesics  
Antacids  
Antibiotics  
Antiobesity agents  
Cardiovascular agents  
Dietary fiber  
Dietary supplements  
Emulsifying agents  
Psychotropics  
(preparation of sugar-free and optionally protein-based chewable delivery systems for drugs and nutraceuticals)  
IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerin, biological studies 69-65-8, Mannitol 87-99-0, Xylitol 149-32-6, Erythritol 585-86-4, Lactitol 585-88-6, Maltitol 7440-31-5D, Tin, esters 9005-25-8D, Starch, hydrolyzed, hydrogenated 27750-10-3, Hydroxycitric acid 64519-82-0, Isomalt 68424-04-4, Polydextrose  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of sugar-free and optionally protein-based chewable delivery systems for drugs and nutraceuticals)  
L60 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:540775 HCAPLUS Full-text  
DOCUMENT NUMBER: 139:100278  
TITLE: Antiobesity food  
INVENTOR(S): Ogata, Koichi; Hara, Mariko  
PATENT ASSIGNEE(S): Kanebo, Ltd., Japan; Kanebo Foods, Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003199533	A	20030715	JP 2002-2058	20020109 <--
JP 3766026	B2	20060412		
PRIORITY APPLN. INFO.:			JP 2002-2058	20020109 <--
OTHER SOURCE(S):	MARPAT	139:100278		
ED Entered STN:	15 Jul	2003		
GI				



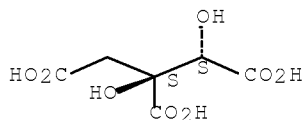
AB The antiobesity food is prepared from hydroxycitric acid and fat degradation-facilitation substances (I and II : R = H, C2-20 acyl, monosaccharide, and oligosaccharide). The antiobesity food has good organoleptic characteristics. Manufacture of chewing gum containing I (R = H) was shown.

IT 27750-10-3, Hydroxycitric acid  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (antiobesity food manufactured from hydroxycitric acid and fat degradation-facilitation substances)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L001-30  
 ICS A61K031-12; A61K031-194; A61K031-222; A61K031-7024; A61K031-7034;  
 A61P003-04

CC 17-14 (Food and Feed Chemistry)

IT Beverages  
 (health; antiobesity food manufactured from hydroxycitric acid and fat degradation-facilitation substances)

IT 5471-51-2 27750-10-3, Hydroxycitric acid  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (antiobesity food manufactured from hydroxycitric acid and fat degradation-facilitation substances)

L60 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:814219 HCAPLUS Full-text

DOCUMENT NUMBER: 137:326100

TITLE: Improvements in or relating to modified cellulose films

INVENTOR(S): Ayers, Victoria Jane; Nowak, Edward Zbygniew

PATENT ASSIGNEE(S): Bioprogress Technology International, Inc., USA

SOURCE: PCT Int. Appl., 11 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 2002083779	A1	20021024	WO 2002-GB1646	20020408 <--

10/541828

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

GB 2374874 A 20021030 GB 2001-9088 20010411 <--  
GB 2374343 A 20021016 GB 2002-8066 20020408 <--  
CA 2443242 A1 20021024 CA 2002-2443242 20020408 <--  
AU 2002253300 A1 20021028 AU 2002-253300 20020408 <--  
AU 2002253300 B2 20071108  
EP 1412424 A1 20040428 EP 2002-722419 20020408 <--  
EP 1412424 B1 20071017

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004525229 T 20040819 JP 2002-582124 20020408 <--  
NZ 528666 A 20060728 NZ 2002-528666 20020408 <--  
AT 376030 T 20071115 AT 2002-722419 20020408 <--  
US 2004151777 A1 20040805 US 2003-474763 20031009 <--

PRIORITY APPLN. INFO.:

GB 2001-9088 A 20010411 <--  
WO 2002-GB1646 W 20020408 <--

ED Entered STN: 25 Oct 2002

AB A hydroxypropyl Me cellulose film comprises hydroxypropyl Me cellulose  
plasticized with a plasticizer comprising a fruit acid or a salt or a fruit  
acid, preferably lactic acid. The film is safe for human consumption and  
finds use as a wall material of an ingestible delivery capsule, e.g.,  
containing a dose of pharmaceutical preparation or a dietary supplement.

IT 27750-10-3, Hydroxycitric acid

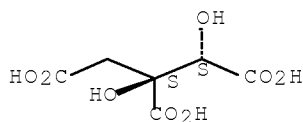
RL: MOA (Modifier or additive use); USES (Uses)

(plasticizer; fruit acids or salts as plasticizers for hydroxypropyl Me  
cellulose films)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentartic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM C08K005-00

ICS C08L001-28

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 17, 38, 43, 63

IT 50-21-5, Lactic acid, uses 77-92-9, Citric acid, uses 79-14-1,  
Glycolic acid, uses 87-69-4, Tartaric acid, uses 6915-15-7, Malic acid  
27750-10-3, Hydroxycitric acid

RL: MOA (Modifier or additive use); USES (Uses)

(plasticizer; fruit acids or salts as plasticizers for hydroxypropyl Me  
cellulose films)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT



10/541828

L60 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:688478 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:222054  
 TITLE: Salts of (-)-hydroxycitric acid for pharmaceutical  
 preparations for stable and controlled delivery  
 INVENTOR(S): Clouatre, Dallas L.; Dunn, James M.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S., 6 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6447807	B1	20020910	US 2000-661665	20000914 <--
PRIORITY APPLN. INFO.:			US 1999-153920P	P 19990914 <--
			US 1999-153923P	P 19990914 <--
			US 1999-153924P	P 19990914 <--

ED Entered STN: 11 Sep 2002

AB A method for making the potassium and sodium salts of (-)-hydroxycitric acid and mixts. thereof workable, non-hygroscopic and non-reactive in acidic media by encasement in hydrophobic and acidophobic polymers are described. The calcium and magnesium salts of (-)-hydroxycitric acid likewise can be rendered non-reactive in acidic media. The resulting products are suitable for tableting, encapsulation and use in other dry media for weight loss, appetite suppression, improvements in fat metabolism and postprandial lipemia and other pharmaceutical purposes. Further, the products of this invention can be made non-reactive as components of acidic liquid drink mixes and snack bars and can be used in the production of controlled release administration formats. For example, a powder containing potassium (-)-hydroxycitrate powder (35% KHCA) 1.00 g, cellulose acetate phthalate 0.50 g, calcium sulfate 0.30 g, talc 0.03 g, and magnesium stearate 0.02 g can be used to compress tablets weighing 1000-1500 mg which would contain 540-818 mg of the prepared KHCA powder. Considering that the starting material is only 35% active, the amount of KHCA per tablet would be 189-287 mg. These tablets will not dissolve in the acid media of the stomach and will start a gradually release of the drug product once they arrive in the more pH neutral media of the 2nd part of the small intestine. Addnl. these tablets can be over coated with a clear film to protect them from any random damage, but this will not affect their dissoln. rate.

IT 27750-10-3D, (-)-Hydroxycitric acid, salts 64913-19-5  
 185196-38-7

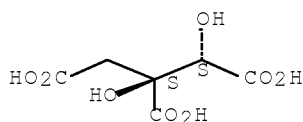
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(polymer coating or encapsulation of (-)-hydroxycitrate salts for stable and controlled delivery systems)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

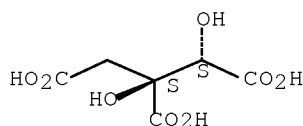


10/541828

RN 64913-19-5 HCAPLUS

CN Pentaric acid, 3-C-carboxy-2-deoxy-, sodium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

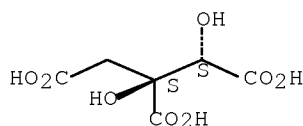


●x Na

RN 185196-38-7 HCAPLUS

CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, potassium salt (1:?) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x K

IC ICM A61K009-16

ICS A61K009-50; A61K047-00; A61K009-22; A61K009-00

INCL 424494000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 17

IT Antiobesity agents

Appetite depressants

Beverages

Freeze drying

Granulation

Human

Hypolipemic agents

(polymer coating or encapsulation of (-)-hydroxycitrate salts for stable and controlled delivery systems)

IT 27750-10-3D, (-)-Hydroxycitric acid, salts 64913-19-5  
185196-38-7

RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

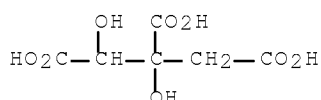
(polymer coating or encapsulation of (-)-hydroxycitrate salts for stable and controlled delivery systems)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:393339 HCAPLUS Full-text

DOCUMENT NUMBER: 135:60294  
 TITLE: Application of the herbs to dietary supplements  
 AUTHOR(S): Tsuji, Tomoko  
 CORPORATE SOURCE: Fanc1, Yokohama, 244-0806, Japan  
 SOURCE: Fragrance Journal (2001), 29(5), 45-51  
 CODEN: FUJAD7; ISSN: 0288-9803  
 PUBLISHER: Fureguransu Janaru Sha  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: Japanese  
 ED Entered STN: 01 Jun 2001  
 AB A review with 25 refs., on present status of application of herbs to dietary supplements in USA and Japan, and development of a complex herb supplement containing Garcinia extract for antiobesity. Effects of hydroxycitric acid isolated from Garcinia extract on reducing body weight and lipid metabolism are also discussed.  
 IT 6205-14-7  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (application of herbs to dietary supplements)  
 RN 6205-14-7 HCAPLUS  
 CN Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

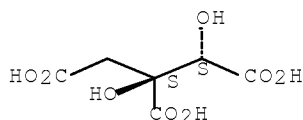


CC 17-0 (Food and Feed Chemistry)  
 Section cross-reference(s): 18  
 ST review dietary supplement herb Garcinia ext;  
 antiobesity dietary supplement Garcinia review  
 IT Antiobesity agents  
 Health food  
 (application of herbs to dietary supplements)  
 IT Garcinia cambogia  
 (exts.; application of herbs to dietary supplements  
 )  
 IT Diet  
 (supplements; application of herbs to dietary  
 supplements)  
 IT 6205-14-7  
 RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (application of herbs to dietary supplements)  
 L60 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2000:592686 HCAPLUS Full-text  
 DOCUMENT NUMBER: 133:176525  
 TITLE: Soluble double metal salt of group IA and IIA of (-)  
 hydroxycitric acid for food products  
 INVENTOR(S): Subbarao, Pillarisetti Venkata; Balasubramanyam,  
 Karnam; Chandrashekar, Bhaskaran; Ramadoss, Candadai  
 Seshadri

PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

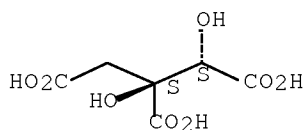
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000048983	A1	20000824	WO 1999-IN4	19990218 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2364245	A1	20000824	CA 1999-2364245	19990218 <--
AU 9928517	A1	20000904	AU 1999-28517	19990218 <--
EP 1154978	A1	20011121	EP 1999-909175	19990218 <--
R: BE, CH, DE, DK, FR, GB, IT, LI, NL, SE, FI				
JP 2002542152	T	20021210	JP 2000-599724	19990218 <--
PRIORITY APPLN. INFO.:			WO 1999-IN4	W 19990218 <--
ED Entered STN: 25 Aug 2000				
AB This invention relates to a new soluble double salt of group IA and group IIA of (-)hydroxycitric acid. This invention also includes a process of preparing the soluble double metal salt of groups IA and IIA of (-)hydroxycitric acid comprising preparing (-)hydroxycitric acid liquid concentrate/solid lactone thereof from Garcinia extract, neutralizing the free (-)hydroxycitric acid present in the said (-)hydroxycitric acid liquid concentrate/solid lactone (-)hydroxycitric acid with group IA metal hydroxides, displacing partially the group IA metal ions in the above salt solns. by adding group IIA metal chlorides to form soluble double metal salt of group IA and IIA of (-)hydroxycitric acid, and precipitating the said double metal salt. The instant invention also disclosed the use of the said soluble double metal salt of (-)hydroxycitric acid in beverages and other food products.				
IT 27750-10-3D, (-)-Hydroxycitric acid, salts of metals 288569-74-4				
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (soluble double metal salt of group IA and IIA of (-) hydroxycitric acid for food products)				
RN 27750-10-3 HCAPLUS				
CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)				

Absolute stereochemistry. Rotation (-).



RN 288569-74-4 HCAPLUS  
 CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, calcium sodium salt (1:1:1)  
 (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● Ca

● Na

IC ICM C07C059-245  
ICS C12C005-02  
CC 17-6 (Food and Feed Chemistry)  
IT Beverages  
Food additives  
(soluble double metal salt of group IA and IIA of (-) hydroxycitric acid for food products)  
IT 27750-10-3D, (-)-Hydroxycitric acid, salts of metals  
288569-74-4  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(soluble double metal salt of group IA and IIA of (-) hydroxycitric acid for food products)  
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2000:875764 HCAPLUS [Full-text](#)  
DOCUMENT NUMBER: 134:28742  
TITLE: Soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties  
INVENTOR(S): Balasubramanyam, Karanam; Chandrasekhar, Bhaskaran; Ramadoss, Candadai Seshadri; Rao, Pillarisetti Venkata Subba  
PATENT ASSIGNEE(S): Vittal Malliya Scientific Research Foundation, India  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6160172	A	20001212	US 1998-59354	19980414 <--
IN 182487	A1	19990417	IN 1997-MA1880	19970827 <--
IN 182488	A1	19990417	IN 1997-MA1881	19970827 <--
IN 182489	A1	19990417	IN 1997-MA1985	19970908 <--
IN 182490	A1	19990417	IN 1997-MA1986	19970908 <--
IN 182810	A1	19990724	IN 1997-MA1987	19970908 <--
IN 183849	A1	20000429	IN 1998-MA2416	19981028 <--
US 6395296	B1	20020528	US 2000-637085	20000811 <--
PRIORITY APPLN. INFO.:			IN 1997-MA1880	A 19970827 <--

10/541828

IN 1997-MA1881	A 19970827 <--
IN 1997-MA1985	A 19970908 <--
IN 1997-MA1986	A 19970908 <--
IN 1997-MA1987	A 19970908 <--
US 1998-59354	A3 19980414 <--

ED Entered STN: 14 Dec 2000

AB The present invention is directed to a new soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid of general formula I: where X is IA group metal: Li or Na or K or Rb or Cs or Fr where Y is IIA group metal: Be or Mg or Ca or Sr or Ba or Ra where the concentration of X in the salt varies from 1.5-51.0%, the concentration of Y in the salts varies from 2.0-50.9%, the concentration of HCA in the salt varies from 31.0-93.0% depending on the nature of X and Y. This invention more particularly relates to new soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid of general formula II. This invention also includes a process of preparing the soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid of general formula I comprising: preparing (-)-hydroxycitric acid liquid concentrate/solid lactone of hydroxycitric acid from Garcinia extract, neutralizing the free (-)-hydroxycitric acid present in the said (-)-hydroxycitric acid liquid concentrate/solid lactone (-)-hydroxycitric acid with group IA metal hydroxides, displacing partially the group IA metal ions in the above salt solns. by adding group IIA metal chlorides to form soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, precipitating the said double metal salt of group IA & IIA of (-)-hydroxycitric acid by adding aqueous polar solvent to get soluble IIA metal salt of (-)-hydroxycitric acid or obtaining the soluble double metal salt as powder by spray drying prior to the solvent addition or spray drying water solubilized solvent precipitated material. The instant invention also discloses the use of the said soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid of formula I and particularly formula II in beverages and other food products and its use in beverages and other food products.

IT 27750-10-3DP, (-)-Hydroxycitric acid, double metal salts  
213385-58-1P

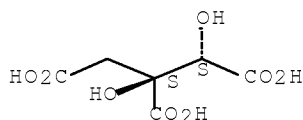
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

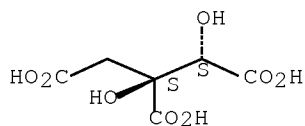
Absolute stereochemistry. Rotation (-).



RN 213385-58-1 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, calcium salt (1:?) (CA INDEX NAME)

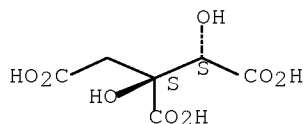
Absolute stereochemistry. Rotation (-).



●x Ca

IT 52729-47-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)  
 RN 52729-47-2 HCAPLUS  
 CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●3 Na

IC ICM C07C059-265  
 INCL 562584000  
 CC 17-6 (Food and Feed Chemistry)  
 Section cross-reference(s): 23  
 IT Beer  
 (Dortmund; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)  
 IT Beer  
 (Munich; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)  
 IT Beer  
 (Porter; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)  
 IT Beer  
 (Stout; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)  
 IT Beer  
 (ale, Munich; soluble double metal salt of group IA and IIA of

(-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

IT Beverages

(cola; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

IT Beer

(pilsner; soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

IT Beverages

Food additives

Honey

Polar solvents

Syrups (sweetening agents)

(soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

IT 7439-93-2DP, Lithium, hydroxycitric acid salts, biological studies  
 7439-95-4DP, Magnesium, hydroxycitric acid salts, biological studies  
 7440-09-7DP, Potassium, hydroxycitric acid salts, biological studies  
 7440-14-4DP, Radium, hydroxycitric acid salts, biological studies  
 7440-17-7DP, Rubidium, hydroxycitric acid salts, biological studies  
 7440-23-5DP, Sodium, hydroxycitric acid salts, biological studies  
 7440-24-6DP, Strontium, hydroxycitric acid salts, biological studies  
 7440-39-3DP, Barium, hydroxycitric acid salts, biological studies  
 7440-41-7DP, Beryllium, hydroxycitric acid salts, biological studies  
 7440-46-2DP, Cesium, hydroxycitric acid salts, biological studies  
 7440-70-2DP, Calcium, hydroxycitric acid salts, biological studies  
 7440-73-5DP, Francium, hydroxycitric acid salts, biological studies  
 27750-10-3DP, (-)-Hydroxycitric acid, double metal salts  
 213385-58-1P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

IT 52729-47-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(soluble double metal salt of group IA and IIA of (-)-hydroxycitric acid, process of preparing the same and its use in beverages and other food products without effecting their flavor and properties)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L60 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:853616 HCAPLUS Full-text

DOCUMENT NUMBER: 142:73807

TITLE: A dietary composition for body weight loss

INVENTOR(S): Lee, Myoung Hee

PATENT ASSIGNEE(S): S. Korea

SOURCE: Repub. Korea, No pp. given

CODEN: KRXXFC

DOCUMENT TYPE: Patent

LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 198159	B1	19990615	KR 1996-18306	19960528 <--
PRIORITY APPLN. INFO.:			KR 1996-18306	19960528 <--

ED Entered STN: 18 Oct 2004

AB A dietary composition for weight loss is provided, which has carnitine, choline, hydroxy citrate and chrome picoline acid, and increases resting metabolic rate(RMR) by enabling the efficient use of energy sources for somatic bodies. The composition contains 2 or more ingredients from 1-3000mg of L-carnitine, 1-3000mg of choline, 1-5000mg of hydroxy citrate(Brindall berry extract) and 1-1000µg of chrome(chrome picoline acidic type). The composites are formed as tablets, capsules, powder, liquid or candy type and added to substitute food having carbohydrates, fat, protein, vitamins and minerals. The composites restrain fat synthesis through controlling resting metabolic rate(RMR) and promoting oxidation of fats. Metabolic products restrain appetite with minimizing the damage of a body and fats, and keep the weight loss.

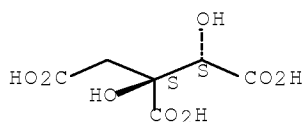
IT 27750-10-3, Hydroxycitric acid

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(dietary composition for body weight loss)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentartic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L001-29

CC 17-14 (Food and Feed Chemistry)  
Section cross-reference(s): 13, 18

ST dietary supplement body wt loss

IT Appetite

Dietary supplements

Energy metabolism

(dietary composition for body weight loss)

IT 62-49-7, Choline 98-98-6D, Picolinic acid, chromium complex 541-15-1,  
Carnitine 27750-10-3, Hydroxycitric acid

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(dietary composition for body weight loss)

L60 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:650628 HCAPLUS Full-text

DOCUMENT NUMBER: 129:330033

TITLE: Calcium compositions containing hydroxycitrates and malates, calcium supplements, and calcium-enriched foods

INVENTOR(S): Kobayashi, Tadashi; Okano, Toshio; Ishizaki, Toshiyuki; Ushirosako, Akira; Kimizuka, Nobuo; Morita, Hideo

PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan

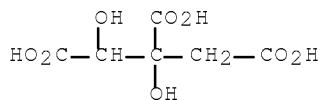
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

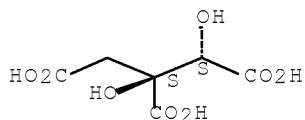
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10262610	A	19981006	JP 1997-88647	19970325 <--
JP 3736776	B2	20060118		

PRIORITY APPLN. INFO.: JP 1997-88647 19970325 <--  
 ED Entered STN: 14 Oct 1998  
 AB Ca supplements or Ca-enriched foods contain soluble compns. containing Ca sources, hydroxycitric acid sources, and malic acid sources. The compns. show improved solubility and absorbability. Garcinia extract, malic acid, and CaCO<sub>3</sub> were dissolved into H<sub>2</sub>O to give a Ca composition, which showed good solubility in H<sub>2</sub>O and an artificial digestive juice and effective Ca uptake by femur bone.  
 IT 6205-14-7, Hydroxycitric acid 27750-10-3  
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Ca compns. containing hydroxycitrate and malate for Ca supplements or Ca-enriched foods)  
 RN 6205-14-7 HCAPLUS  
 CN Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)



RN 27750-10-3 HCAPLUS  
 CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L001-304  
 ICS A61K031-19; A61K033-06  
 CC 17-14 (Food and Feed Chemistry)  
 Section cross-reference(s): 63  
 IT Beverages  
 (health; Ca compns. containing hydroxycitrate and malate for Ca supplements or Ca-enriched foods)  
 IT 676-46-0, Sodium malate 6205-14-7, Hydroxycitric acid  
 6915-15-7, Malic acid 17482-42-7, Calcium malate 27750-10-3  
 RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Ca compns. containing hydroxycitrate and malate for Ca supplements or

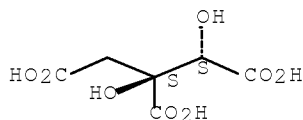
Ca-enriched foods)

L60 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:38533 HCAPLUS Full-text  
 DOCUMENT NUMBER: 128:114299  
 TITLE: Diet beverages containing hydroxycitric acid and carbon dioxide gas  
 INVENTOR(S): Tomi, Hirotaka; Tamura, Koichi  
 PATENT ASSIGNEE(S): Nippon Shinyaku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10004939	A	19980113	JP 1996-167746	19960627 <--
PRIORITY APPLN. INFO.:			JP 1996-167746	19960627 <--

ED Entered STN: 23 Jan 1998  
 AB Title beverages show satiating effect and are useful for body weight decrease. Hydroxycitric acid (I) in the beverages is stabilized by CO2 gas. A beverage containing 1.0 weight% Garcinia cambogia extract (containing 50 weight% I) and CO2 gas was manufactured  
 IT 27750-10-3, Hydroxycitric acid  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (diet beverages containing hydroxycitric acid and CO2 gas)  
 RN 27750-10-3 HCAPLUS  
 CN D-erythro-Pentarcic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L002-52  
 ICS A23L002-00; A23L002-02; A23L002-38; A61K031-19; A61K035-78  
 CC 17-13 (Food and Feed Chemistry)  
 IT Beverages  
 (diet beverages containing hydroxycitric acid and CO2 gas)  
 IT 27750-10-3, Hydroxycitric acid  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (diet beverages containing hydroxycitric acid and CO2 gas)

L60 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:328556 HCAPLUS Full-text  
 DOCUMENT NUMBER: 125:9152  
 TITLE: Hydroxycitric acid concentrate and method of making  
 INVENTOR(S): Moffett, Scott Alexander; Bhandari, Ashok Kumar;  
 Ravindranath, Bhagavathula  
 PATENT ASSIGNEE(S): Renaissance Herbs, Inc., USA; Vittal Malliya Scientific  
 Research Foundation  
 SOURCE: PCT Int. Appl., 20 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9605741	A1	19960229	WO 1995-US10707	19950822 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5536516	A	19960716	US 1994-295281	19940824 <--
CA 2198376	A1	19960229	CA 1995-2198376	19950822 <--
AU 9534129	A	19960314	AU 1995-34129	19950822 <--
EP 782399	A1	19970709	EP 1995-930918	19950822 <--
EP 782399	B1	20011031		
R: DE, FR, GB, IT				
CN 1162910	A	19971022	CN 1995-195577	19950822 <--
CN 1082354	B	20020410		
BR 9508766	A	19971111	BR 1995-8766	19950822 <--
JP 10504826	T	19980512	JP 1995-508284	19950822 <--
US 5656314	A	19970812	US 1996-633921	19960417 <--
AU 9944827	A1	20000608	AU 1999-44827	19990827 <--
AU 742170	B2	20011220		
PRIORITY APPLN. INFO.:			US 1994-295281	A 19940824 <--
			WO 1995-US10707	W 19950822 <--

ED Entered STN: 07 Jun 1996

AB A hydroxycitric acid concentrate prepared from Garcinia rind including 23 to 54% by weight free hydroxycitric acid, 6 to 20% by weight lactone of hydroxycitric acid, 0.001 to 8% by weight citric acid, and 32 to 70% by weight water has been claimed, wherein the free hydroxycitric acid, the lactone of hydroxycitric acid and the citric acid constitute 94 to 99% by weight of total solutes dissolved in the water. Also disclosed is a method of preparing such a concentrate from Garcinia rind, as well as food products containing hydroxycitric acid.

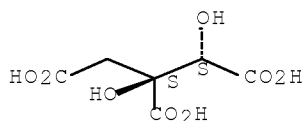
IT 27750-10-3P, Hydroxycitric acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of hydroxycitric acid concentrate)

RN 27750-10-3 HCAPLUS

CN D-erythro-Pentamic acid, 3-C-carboxy-2-deoxy- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IC ICM A23L002-78

ICS A23L003-3508

CC 17-6 (Food and Feed Chemistry)

IT Beverages  
 Dietary fiber  
 (concentration of hydroxycitric acid from Garcinia rind)  
 IT 27750-10-3P, Hydroxycitric acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of hydroxycitric acid concentrate)

THE ESTIMATED COST FOR THIS REQUEST IS 75.01 U.S. DOLLARS  
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N: y

L60 ANSWER 25 OF 51 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.  
 (2008) on STN DUPLICATE 1

ACCESSION NUMBER: 2004:4692 AGRICOLA Full-text  
 DOCUMENT NUMBER: IND43612776  
 TITLE: Dose- and time-dependent effects of a novel  
 (-)-hydroxycitric acid extract on body weight, hepatic  
 and testicular lipid peroxidation, DNA fragmentation  
 and histopathological data over a period of 90 days.  
 AUTHOR(S): Shara, M.; Ohia, S.E.; Yasmin, T.; Zardetto-Smith, A.;  
 Kincaid, A.; Bagchi, M.; Chatterjee, A.; Bagchi, D.;  
 Stohs, S.J.  
 AVAILABILITY: DNAL (QD501.M63)  
 SOURCE: Molecular and cellular biochemistry, 2003 Dec.  
 Vol. 254, no. 1/2 p. 339-346  
 ISSN: 0300-8177  
 NOTE: Includes references  
 DOCUMENT TYPE: Article  
 FILE SEGMENT: Non US  
 LANGUAGE: English

L60 ANSWER 26 OF 51 MEDLINE on STN DUPLICATE 2  
 ACCESSION NUMBER: 2003574383 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 14655443  
 TITLE: [Dietary supplements and functional  
 food for weight reduction -- expectations and reality].  
 Nahrungsmittelergaenzungen und Funktionale Nahrung. Was taugen die  
 neuen "Schlankmacher" wirklich?.  
 AUTHOR: Hahn A; Strohle A; Wolters M  
 CORPORATE SOURCE: Zentrum angewandte Chemie, Institut fur  
 Lebensmittelwissenschaft, Universitat Hannover..  
 andreas.hahn@lw.uni-hannover.de  
 SOURCE: MMW Fortschritte der Medizin, (2003 Oct 16) Vol.  
 145, No. 42, pp. 40-5.  
 Journal code: 100893959. ISSN: 1438-3276.  
 PUB. COUNTRY: Germany: Germany, Federal Republic of  
 DOCUMENT TYPE: (ENGLISH ABSTRACT)  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: German  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200404  
 ENTRY DATE: Entered STN: 16 Dec 2003  
 Last Updated on STN: 17 Apr 2004  
 Entered Medline: 16 Apr 2004

AB Looked at with scientific dispassion, much of the frequently aggressive advertising for slimming products must be considered to be dishonest and misleading. This applies, for example, to the "fat burner" carnitine or for chromium-containing preparations such as chromium picolinate, which in large doses have been shown to have detrimental effects on health. Products for which there actually is a scientific rationale all have minor weight-reducing effects, so that they must be considered to have at most an adjuvant role within the framework of evidence-based concepts for losing weight. Examples of alleged slimming substances that in reality can do no more than support weight reduction are the so-called medium-chain triglycerides (MCT) or caffeine, with the latter showing an effect vis-a-vis placebo only in combination studies with ephedrine.

CT \*Anti-Obesity Agents: TU, therapeutic use  
 Carnitine: AD, administration & dosage  
 Carnitine: TU, therapeutic use  
 Citrates: AD, administration & dosage  
 Citrates: TU, therapeutic use  
 Controlled Clinical Trials as Topic  
 \*Dietary Supplements  
 Double-Blind Method  
 \*Food  
 Humans  
 Linoleic Acids, Conjugated: AD, administration & dosage  
 Linoleic Acids, Conjugated: TU, therapeutic use  
 Obesity: DT, drug therapy  
 \*Obesity: TH, therapy  
 \*Weight Loss

RN 541-15-1 (Carnitine); 6205-14-7 (hydroxycitric acid)

CN 0 (Anti-Obesity Agents); 0 (Citrates); 0 (Linoleic Acids, Conjugated)

L60 ANSWER 27 OF 51 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 2001517930 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11564468

TITLE: Effect of hydroxycitrate on food intake and body weight regain after a period of restrictive feeding in male rats.

AUTHOR: Leonhardt M; Hrupka B; Langhans W

CORPORATE SOURCE: Institute of Animal Sciences, Swiss Federal Institute of Technology, CH-8603, Schwerzenbach, Switzerland..  
 monika.leonhardt@inw.agrl.ethz.ch

SOURCE: Physiology & behavior, (Sep 1-15 2001) Vol. 74,  
 No. 1-2, pp. 191-6.  
 Journal code: 0151504. ISSN: 0031-9384.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200110

ENTRY DATE: Entered STN: 24 Sep 2001  
 Last Updated on STN: 29 Oct 2001  
 Entered Medline: 25 Oct 2001

AB We examined whether dietary supplementation of hydroxycitrate (HCA), a competitive inhibitor of the extramitochondrial enzyme ATP-citrate-lyase, which inhibits lipogenesis, reduces food intake and body weight regain in rats after 10-15% weight loss. In four experiments, 24 male rats were fed restrictively (10 g/day) for 10 days and then given ad lib access to one of four different diets (HI-Suc=high sucrose; HI-Glu=high glucose; Chow=grounded standard rat chow; HI-Glu+Fat=high glucose+fat) varying in the content of fat and low molecular carbohydrates for the following 10 days. For half of the rats (n=12), the ad lib diet was supplemented with 3% (w/w) HCA. HCA reduced

body weight regain with all diets except Chow. HCA also reduced food intake temporarily with three of the four tested diets. The suppressive effect of HCA on food intake was particularly strong with the HI-Glu+Fat diet (fat=24% of energy). With Diet HI-Glu and HI-Glu+Fat HCA reduced the feed conversion efficiency (cumulative body weight regain (g)/cumulative food intake (MJ)) during the 10 ad lib days, suggesting that it also increased energy expenditure. This effect seemed to be positively related to the glucose content of the diet. All in all, HCA reduced body weight regain after substantial body weight loss, and the effects are presumably linked to its inhibiting effect on lipogenesis, but the exact mechanism still has to be determined.

CT Check Tags: Male

Animals

\*Body Weight: DE, drug effects

\*Citrates: PD, pharmacology

Diet

Dietary Carbohydrates: PD, pharmacology

Dietary Fats: PD, pharmacology

\*Eating: DE, drug effects

Energy Metabolism: DE, drug effects

Fatty Acids: BI, biosynthesis

\*Food Deprivation: PH, physiology

Rats

Rats, Sprague-Dawley

Weight Gain: DE, drug effects

RN 6205-14-7 (hydroxycitric acid)

CN 0 (Citrates); 0 (Dietary Carbohydrates); 0 (Dietary Fats); 0 (Fatty Acids)

L60 ANSWER 28 OF 51 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2001314500 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11319829

TITLE: Gas chromatography/mass spectrometry method to quantify blood hydroxycitrate concentration.

AUTHOR: Loe Y C; Bergeron N; Rodriguez N; Schwarz J M

CORPORATE SOURCE: Department of Nutritional Sciences, University of California at Berkeley, 119 Morgan Hall, Berkeley, California 94720-3104, USA.

SOURCE: Analytical biochemistry, (2001 May 1) Vol. 292, No. 1, pp. 148-54.

Journal code: 0370535. ISSN: 0003-2697.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200106

ENTRY DATE: Entered STN: 25 Jun 2001

Last Updated on STN: 25 Jun 2001

Entered Medline: 21 Jun 2001

AB Hydroxycitrate (HCA), a popular dietary supplement for weight loss, is a competitive inhibitor of ATP-citrate lyase, an extramitochondrial enzyme involved in the initial steps of de novo lipogenesis (DNL). Although animal studies have shown that HCA effectively inhibits DNL and induces weight loss, these findings have not been consistent in humans. This raises the possibility that the bioavailability of HCA may differ among species. We developed a new GC/MS method to measure HCA levels in blood, using [U-(13)C]citrate (CA\*) as internal standard to account for losses associated with the isolation, derivatization, and measurement of HCA. HCA and CA\* were derivatized with BSTFA + 10% TMCS and analyzed using PCI/GC/MS (CA\*, m/z 471; and HCA, m/z 553). The plasma HCA concentration was measured over a 3.5-h

period in four subjects having ingested 2 g of HCA. Their plasma HCA concentration ranged from 0.8 to 8.4 microg/ml 30 min and 2 h after ingestion, respectively. These results demonstrate that when taken acutely, HCA is absorbed, yet present in small quantities in human plasma. This simple method requiring minimal sample preparation is able to measure trace amounts of HCA with accuracy and precision.

CT \*Citrates: BL, blood  
 \*Gas Chromatography-Mass Spectrometry: MT, methods  
 Humans  
 Reference Standards  
 Reproducibility of Results  
 RN 6205-14-7 (hydroxycitric acid)  
 CN 0 (Citrates)

L60 ANSWER 29 OF 51 MEDLINE on STN DUPLICATE 5  
 ACCESSION NUMBER: 2001098428 MEDLINE Full-text  
 DOCUMENT NUMBER: PubMed ID: 11110858  
 TITLE: Chronic (-)-hydroxycitrate administration spares carbohydrate utilization and promotes lipid oxidation during exercise in mice.  
 AUTHOR: Ishihara K; Oyaizu S; Onuki K; Lim K; Fushiki T  
 CORPORATE SOURCE: Laboratory of Nutrition Chemistry, Division of Applied Life Sciences, Graduate School of Agriculture, Kyoto University, Kyoto 606-8502, Japan.  
 SOURCE: The Journal of nutrition, (2000 Dec) Vol. 130, No. 12, pp. 2990-5.  
 Journal code: 0404243. ISSN: 0022-3166.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: (COMPARATIVE STUDY)  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200102  
 ENTRY DATE: Entered STN: 22 Mar 2001  
 Last Updated on STN: 22 Mar 2001  
 Entered Medline: 1 Feb 2001

AB (-)-Hydroxycitrate (HCA) is an active ingredient that is extracted from the rind of the Indian fruit, *Garcinia cambogia*, which is available as an herbal supplement and is used to lose weight. In this study, the acute and chronic effects of HCA on energy metabolism were examined in male Std ddY mice. Mice were placed into metabolic chambers and administered 10 mg HCA or water (control) orally. Serum free fatty acid levels were significantly higher 100 min after administration in the HCA group, but the respiratory exchange ratio was not different from that in the control group. The concentration of glycogen in the gastrocnemius muscle was higher in the HCA group 16 h after administration, and in a separate study, the maximum swimming time until fatigue was slightly longer ( $P = 0.21$ ) than that in the control group on d 1. The difference was significant on d 3 after 3 d of HCA or water administration. Other mice were administered 10 mg HCA or water orally twice a day for 25 d. On d 26, they were placed into metabolic chambers after administration and allowed to rest for 1 h, followed by 1 h of running at 15 m/min. Respiratory gas was monitored. The respiratory exchange ratio was significantly lower in the HCA group during both resting and exercising conditions. These results suggest that chronic administration of HCA promotes lipid oxidation and spares carbohydrate utilization in mice at rest and during running.

CT Check Tags: Male  
 Administration, Oral  
 Animals  
 Anti-Obesity Agents: AD, administration & dosage



\*Anti-Obesity Agents: PD, pharmacology  
 Basal Metabolism: DE, drug effects  
 \*Carbohydrate Metabolism  
 Citrates: AD, administration & dosage  
 \*Citrates: PD, pharmacology  
 Dietary Supplements  
 Energy Metabolism: DE, drug effects  
 Fatty Acids, Nonesterified: AN, analysis  
 Fruit: CH, chemistry  
 Glycogen: AN, analysis  
 \*Lipid Metabolism  
 Mice  
 Muscle, Skeletal: ME, metabolism  
 \*Oxygen Consumption: DE, drug effects  
 \*Physical Endurance: DE, drug effects  
 Running  
 Swimming  
 Time Factors

RN 6205-14-7 (hydroxycitric acid); 9005-79-2 (Glycogen)  
 CN 0 (Anti-Obesity Agents); 0 (Citrates); 0 (Fatty Acids, Nonesterified)

L60 ANSWER 30 OF 51 MEDLINE on STN

ACCESSION NUMBER: 2001251726 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11349754

TITLE: Seizure activity and unresponsiveness after hydroxycut ingestion.

AUTHOR: Kockler D R; McCarthy M W; Lawson C L

CORPORATE SOURCE: Department of Pharmacy Services, Drug Information Center,  
 University of Virginia Health System, Charlottesville  
 22908-0674, USA.

SOURCE: Pharmacotherapy, (2001 May) Vol. 21, No. 5, pp.  
 647-51.

Journal code: 8111305. ISSN: 0277-0008.

PUB. COUNTRY: United States

DOCUMENT TYPE: (CASE REPORTS)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200110

ENTRY DATE: Entered STN: 8 Oct 2001

Last Updated on STN: 8 Oct 2001

Entered Medline: 4 Oct 2001

AB A 22-year-old man was hospitalized after unexplained seizure-like activity and unresponsiveness. A urine toxicology screen was negative for salicylates, acetaminophen, alcohol, and drugs of abuse. Medical history was insignificant with the exception of recent (within 2 wks) ingestion of Hydroxycut is a dietary supplement purported to be energy enhancing, muscle building, and fat burning. The agent contains ephedra alkaloids and caffeine, which are both central nervous system stimulants; the etiology of seizure was attributed to their consumption. Due to a significant number of reported adverse events, the United States Food and Drug Administration (FDA) proposed regulations for dietary supplements containing ephedra alkaloids and requested an independent review of case reports linked to these products. Because herbal products are not subject to the same rigorous FDA regulations required for prescription and over-the-counter products, consumers unknowingly risk adverse effects when taking these products. Questioning patients about consumption of herbal products should be part of routine medical visits.

CT Check Tags: Male

Adult

Caffeine: AE, adverse effects

\*Central Nervous System Stimulants: AE, adverse effects

\*Citrates: AE, adverse effects

Drug Combinations

Drugs, Chinese Herbal: AE, adverse effects

\*Ephedra sinica

Ephedrine: AE, adverse effects

Humans

Phytotherapy

Picolinic Acids: AE, adverse effects

Plant Preparations

Polysaccharides: AE, adverse effects

\*Seizures: CI, chemically induced

Seizures: PX, psychology

Theobromine: AE, adverse effects

Theophylline: AE, adverse effects

RN 299-42-3 (Ephedrine); 58-08-2 (Caffeine); 58-55-9 (Theophylline);  
6205-14-7 (hydroxycitric acid); 83-67-0 (Theobromine); 98-98-6  
(picolinic acid)

CN 0 (Central Nervous System Stimulants); 0 (Citrates); 0 (Drug  
Combinations); 0 (Drugs, Chinese Herbal); 0 (Picolinic Acids); 0 (Plant  
Preparations); 0 (Polysaccharides); 0 (ephedran); 0 (guarana powder); 0  
(hydroxycut); 0 (ma-huang (plant extract))

L60 ANSWER 31 OF 51 MEDLINE on STN

ACCESSION NUMBER: 2001105565 MEDLINE Full-text

DOCUMENT NUMBER: PubMed ID: 11187927

TITLE: Dietary fat intake, supplements, and weight loss.

AUTHOR: Dyck D J

CORPORATE SOURCE: Department of Human Biology and Nutritional Sciences,  
University of Guelph, ON.

SOURCE: Canadian journal of applied physiology = Revue canadienne  
de physiologie appliquee, (2000 Dec) Vol. 25, No.  
6, pp. 495-523. Ref: 159  
Journal code: 9306274. ISSN: 1066-7814.  
(Investigators: Dyck D J, U Guelph, Ontario, Canada)

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)  
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Space Life Sciences

ENTRY MONTH: 200102

ENTRY DATE: Entered STN: 22 Mar 2001

Last Updated on STN: 22 Mar 2001

Entered Medline: 8 Feb 2001

AB Although there remains controversy regarding the role of macronutrient balance in the etiology of obesity, the consumption of high-fat diets appears to be strongly implicated in its development. Evidence that fat oxidation does not adjust rapidly to acute increases in dietary fat, as well as a decreased capacity to oxidize fat in the postprandial state in the obese, suggest that diets high in fat may lead to the accumulation of fat stores. Novel data is also presented suggesting that in rodents, high-fat diets may lead to the development of leptin resistance in skeletal muscle and subsequent accumulations of muscle triacylglycerol. Nevertheless, several current fad diets recommend drastically reduced carbohydrate intake, with a concurrent increase in fat content. Such recommendations are based on the underlying assumption that by reducing circulating insulin levels, lipolysis and lipid oxidation will be enhanced and fat storage reduced. Numerous supplements are purported to increase fat oxidation (carnitine, conjugated linoleic acid),

increase metabolic rate (ephedrine, pyruvate), or inhibit hepatic lipogenesis (hydroxycitrate). All of these compounds are currently marketed in supplemental form to increase weight loss, but few have actually been shown to be effective in scientific studies. To date, there is little or no evidence supporting that carnitine or hydroxycitrate supplementation are of any value for weight loss in humans. Supplements such as pyruvate have been shown to be effective at high dosages, but there is little mechanistic information to explain its purported effect or data to indicate its effectiveness at lower dosages. Conjugated linoleic acid has been shown to stimulate fat utilization and decrease body fat content in mice but has not been tested in humans. The effects of ephedrine, in conjunction with methylxanthines and aspirin, in humans appears unequivocal but includes various cardiovascular side effects. None of these compounds have been tested for their effectiveness or safety over prolonged periods of time.

ST NASA Discipline Musculoskeletal; Non-NASA Center

CT Animals

Anti-Obesity Agents: AE, adverse effects

Anti-Obesity Agents: TU, therapeutic use

Aspirin: AE, adverse effects

Aspirin: TU, therapeutic use

Carnitine: TU, therapeutic use

Citrates: TU, therapeutic use

\*Dietary Fats: AD, administration & dosage

Dietary Fats: AE, adverse effects

\*Dietary Supplements

Dietary Supplements: AE, adverse effects

Ephedrine: TU, therapeutic use

Humans

Insulin: BL, blood

Leptin: ME, metabolism

Linoleic Acid: TU, therapeutic use

Lipid Metabolism

Lipolysis

Mice

Muscle, Skeletal: ME, metabolism

Obesity: ET, etiology

Oxidation-Reduction

Pyruvates: TU, therapeutic use

Rats

Triglycerides: ME, metabolism

\*Weight Loss

Xanthines: AE, adverse effects

Xanthines: TU, therapeutic use

RN 11061-68-0 (Insulin); 2197-37-7 (Linoleic Acid); 28109-92-4  
(methylxanthine); 299-42-3 (Ephedrine); 50-78-2 (Aspirin); 541-15-1  
(Carnitine); 6205-14-7 (hydroxycitric acid)

CN 0 (Anti-Obesity Agents); 0 (Citrates); 0 (Dietary Fats); 0 (Leptin); 0  
(Pyruvates); 0 (Triglycerides); 0 (Xanthines)

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ACCESSION NUMBER: 2003:221348 BIOSIS Full-text

DOCUMENT NUMBER: PREV200300221348

TITLE: 90-Day chronic toxicity study of a novel (-)-hydroxycitric  
acid extract of Garcinia cambogia.

AUTHOR(S): Ohia, S. E. [Reprint Author]; Stohs, S. J. [Reprint  
Author]; Shara, M. [Reprint Author]; Yasmin, T. [Reprint  
Author]; Chatterjee, A. [Reprint Author]; Bagchi, M.  
[Reprint Author]; Zardetto-Smith, A. [Reprint Author];  
Kincaid, A. [Reprint Author]; Bagchi, D. [Reprint Author]

CORPORATE SOURCE: School of Pharmacy and Health Professions, Creighton  
University Medical Center, Omaha, CA, USA

SOURCE: Toxicological Sciences, (March 2003) Vol. 72, No.  
S-1, pp. 254-255. print.  
Meeting Info.: 42nd Annual Meeting of the Society of  
Toxicology. Salt Lake City, Utah, USA. March 09-13, 2003.  
Society of Toxicology.  
ISSN: 1096-6080 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 7 May 2003  
Last Updated on STN: 7 May 2003

CC General biology - Symposia, transactions and proceedings 00520  
Pathology - Therapy 12512  
Pharmacology - General 22002  
Pharmacology - Clinical pharmacology 22005  
Toxicology - General and methods 22501  
Animal production - Feeds and feeding 26504

IT Major Concepts  
Pharmacology; Toxicology

IT Chemicals & Biochemicals  
Super CitriMax: dietary supplement;  
levo-Hydroxycitric acid: dietary supplement, dried  
fruit extract

IT Methods & Equipment  
DNA fragmentation: genetic techniques, laboratory techniques; acute  
toxicity study: laboratory techniques

IT Miscellaneous Descriptors  
Purina Lab Chow: animal feed; weight management; weight management

GT Southern Asia (Asia, Oriental region, Palearctic region)

ORGN Classifier  
Guttiferae 26135  
Super Taxa  
Dicotyledones; Angiospermae; Spermatophyta; Plantae  
Organism Name  
Garcinia cambogia (species)  
Taxa Notes  
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGN Classifier  
Hominidae 86215  
Super Taxa  
Primates; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
human (common)  
Taxa Notes  
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
Sprague-Dawley rat (common): female, male  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,  
Rodents, Vertebrates

RN 27750-10-3 (levo-Hydroxycitric acid)

10/541828

ACCESSION NUMBER: 2002:370365 BIOSIS Full-text  
DOCUMENT NUMBER: PREV200200370365  
TITLE: Effect of hydroxycitric acid on weight loss, Body Mass  
Index and plasma leptin levels in human subjects.  
AUTHOR(S): Preuss, Harry G. [Reprint author]; Bagchi, Debasis; Rao, C.  
V. Sanyasi; Echard, Bobby W.; Satyanarayana, Sremanthula;  
Bagchi, Manashi  
CORPORATE SOURCE: Dept of Physiology and Biophysics, Georgetown University  
Medical Center, 3900 Reservoir Road NW, Washington, DC,  
20007, USA  
SOURCE: FASEB Journal, (March 22, 2002) Vol. 16, No. 5,  
pp. A1020. print.  
Meeting Info.: Annual Meeting of Professional Research  
Scientists on Experimental Biology. New Orleans, Louisiana,  
USA. April 20-24, 2002.  
CODEN: FAJOEC. ISSN: 0892-6638.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 3 Jul 2002  
Last Updated on STN: 3 Jul 2002  
AB A growing body of evidence indicates that Garcinia cambogia-derived (-)-  
hydroxycitric acid (HCA-SX, Super CitriMax(R)) is efficacious in weight  
management by curbing appetite and inhibiting fat synthesis. HCA-SX was shown  
to suppress appetite by increasing serotonin release and may possess  
antidepressant properties similar to fluoxetine. However, the mechanistic  
aspects of weight management by HCA-SX are not completely understood. We  
examined the effects of HCA-SX in 48 moderately obese subjects in a  
randomized, double-blind, placebo-controlled study. The two groups received  
either placebo tid or HCA-SX (2,800 mg tid) 30 min before meals for 8 weeks.  
Both groups received approximately 2,000 kcal diet per day and participated in  
a walking exercise program supervised by a trained exercise specialist.  
Approximately 3.3% and 4.8% loss in body weight was observed following  
supplementation with HCA-SX at the end of 4 and 8 weeks, respectively. Body  
Mass Index (BMI) changed by 3.5% and 6.8%, at the end of 4 and 8 weeks,  
respectively, in the HCA-SX supplemented group, and 1.6% and 2%, respectively.  
Plasma leptin levels were assessed as an index of obesity gene. Plasma leptin  
levels also reduced by 18.8% and 40% at the end of 4 and 8 weeks,  
respectively. Triglyceride, LDL and total cholesterol levels were marginally  
reduced following supplementation with HCA-SX. We conclude that HCA-SX can  
serve as a novel tool in weight management by modulating the obesity gene.  
CC General biology - Symposia, transactions and proceedings 00520  
Nutrition - General studies, nutritional status and methods 13202  
IT Major Concepts  
Nutrition  
IT Diseases  
obesity: nutritional disease  
Obesity (MeSH)  
IT Chemicals & Biochemicals  
hydroxycitric acid [Super CitriMax]: dietary  
supplement; leptin  
IT Miscellaneous Descriptors  
body mass index; weight management; Meeting Abstract  
ORGN Classifier  
Hominidae 86215  
Super Taxa  
Primates; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
human  
Taxa Notes

10/541828

Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 6205-14-7Q (hydroxycitric acid)  
27750-10-3Q (hydroxycitric acid)  
6205-14-7Q (Super CitriMax)  
27750-10-3Q (Super CitriMax)  
169494-85-3 (leptin)

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ACCESSION NUMBER: 2001:252645 BIOSIS Full-text

DOCUMENT NUMBER: PREV200100252645

TITLE: Nutritional supplement products containing chromium  
picolinate and hydroxycitric acid lead to weight loss in  
randomized controlled study.

AUTHOR(S): Greenberg, Danielle [Reprint author]; Harris, Rosemarie  
[Reprint author]; Komorowski, James R. [Reprint author]

CORPORATE SOURCE: AMBI Inc., 4 Manhattanville Road, Purchase, NY, 10577, USA

SOURCE: FASEB Journal, (March 7, 2001) Vol. 15, No. 4,  
pp. A75. print.  
Meeting Info.: Annual Meeting of the Federation of American  
Societies for Experimental Biology on Experimental Biology  
2001. Orlando, Florida, USA. March 31-April 04, 2001.  
CODEN: FAJOEC. ISSN: 0892-6638.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 23 May 2001

Last Updated on STN: 19 Feb 2002

AB Chromium picolinate (CrPic) and hydroxycitric acid (HCA) have both been  
reported to have weight-loss benefits. We examined the effectiveness of a  
weight-loss program using nutritional snacks and capsules containing both  
CrPic and HCA. The USDA Food Guide Pyramid program was used as a control.  
Subjects (BMI 27 - 40 kg/m<sup>2</sup>) were assigned to either a treatment group (n=40)  
that received dietary supplements in the form of bars, snacks or capsules  
containing Cr (200 - 400 mcg/day) and HCA (1000 - 2000 mg/day) along with  
essential vitamins and minerals, or to a control group (n=17) receiving no  
dietary supplement, for 12 weeks. Both groups followed a dietary program  
using the USDA Food Guide Pyramid guidelines (1200-1600 kcal/day). Both  
groups received instructions on following these guidelines, had dietary recall  
monitored and were recommended exercise by a registered dietitian. Body  
weight, fasting insulin, cholesterol and blood glucose were measured. Weight  
consistently and steadily declined in the treatment group with a loss (mean  
4.6, max 19 lbs) that was significantly greater than in the control group  
(mean 0.8, max 6 lbs; F (1.48)= 4.1, p<0.05). There were no significant  
changes in fasting insulin, cholesterol or blood glucose in either group. We  
conclude that CrPic and HCA in combination with other nutrients can be  
effectively used in a moderate weight loss program under normal living  
conditions without severe caloric restriction. The use of the combination of  
these nutrient supplements for weight loss deserves further examination.

CC Food technology - General and methods 13502

General biology - Symposia, transactions and proceedings 00520

Metabolism - General metabolism and metabolic pathways 13002

Nutrition - General studies, nutritional status and methods 13202

Food technology - Synthetic, supplemental and enrichment foods 13534

IT Major Concepts

Foods; Metabolism; Nutrition

IT Chemicals & Biochemicals

chromium picolinate: dietary supplement;

hydroxycitric acid: dietary supplement; nutritional

capsules: dietary supplement

IT Miscellaneous Descriptors  
 caloric restriction; nutritional bar: food supplement  
 ; nutritional snack: food supplement; nutritional  
 supplements: food supplement; weight loss; Meeting  
 Abstract

ORGN Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 human  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 6205-14-7Q (hydroxycitric acid)  
 27750-10-3Q (hydroxycitric acid)

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ACCESSION NUMBER: 2003465111 EMBASE Full-text  
 TITLE: The Irony of Herbal Hepatitis: Ma-Huang-Induced  
 Hepatotoxicity Associated with Compound Heterozygosity for  
 Hereditary Hemochromatosis.  
 AUTHOR: Bajaj J.; Knox J.F.; Komorowski R.; Saeian K.  
 CORPORATE SOURCE: Dr. K. Saeian, Div. of Gastroenterol. and Hepatol., Medical  
 College of Wisconsin, 9200 West Wisconsin Ave., Milwaukee,  
 WI 53226, United States  
 SOURCE: Digestive Diseases and Sciences, (Oct 2003) Vol. 48, No.  
 10, pp. 1925-1928.  
 Refs: 10  
 ISSN: 0163-2116 CODEN: DDSCDJ  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 038 Adverse Reactions Titles  
 048 Gastroenterology  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 11 Dec 2003  
 Last Updated on STN: 11 Dec 2003

CT Medical Descriptors:  
 adult  
 article  
 case report  
 diet supplementation  
 disease association  
 \*Ephedra sinica  
 food and drug administration  
 Garcinia cambogia  
 genetic disorder: DI, diagnosis  
 genetic disorder: EP, epidemiology  
 genetic disorder: ET, etiology  
 hemochromatosis: DI, diagnosis  
 hemochromatosis: EP, epidemiology  
 hemochromatosis: ET, etiology  
 \*herbal hepatitis: SI, side effect  
 \*herbal medicine  
 heterozygosity  
 human  
 liver toxicity: SI, side effect  
 male

priority journal  
tea  
\*toxic hepatitis: SI, side effect  
willow

CT Drug Descriptors:  
caffeine: AE, adverse drug reaction  
caffeine: CB, drug combination  
caffeine: PD, pharmacology  
carnitine: AE, adverse drug reaction  
carnitine: CB, drug combination  
carnitine: PD, pharmacology  
cellulose: PR, pharmaceuticals  
Ephedra extract: AE, adverse drug reaction  
Ephedra extract: CB, drug combination  
Ephedra extract: PD, pharmacology  
garcinia cambogia extract: AE, adverse drug reaction  
garcinia cambogia extract: CB, drug combination  
garcinia cambogia extract: PD, pharmacology  
gelatin: PR, pharmaceuticals  
green tea leaf extract: AE, adverse drug reaction  
green tea leaf extract: CB, drug combination  
green tea leaf extract: PD, pharmacology  
guarana seed extract: AE, adverse drug reaction  
guarana seed extract: CB, drug combination  
guarana seed extract: PD, pharmacology  
\*herbaceous agent: AE, adverse drug reaction  
\*herbaceous agent: PD, pharmacology  
hydroxycitric acid: AE, adverse drug reaction  
hydroxycitric acid: CB, drug combination  
hydroxycitric acid: PD, pharmacology  
\*hydroxycut: AE, adverse drug reaction  
\*hydroxycut: PD, pharmacology  
magnesium stearate: PR, pharmaceuticals  
muscle tech  
plant extract: AE, adverse drug reaction  
plant extract: CB, drug combination  
plant extract: PD, pharmacology  
salicin: AE, adverse drug reaction  
salicin: CB, drug combination  
salicin: PD, pharmacology  
silicon dioxide: PR, pharmaceuticals  
unclassified drug  
willow bark extract: AE, adverse drug reaction  
willow bark extract: CB, drug combination  
willow bark extract: PD, pharmacology  
RN (caffeine) 30388-07-9, 58-08-2; (carnitine) 461-06-3, 541-15-1, 56-99-5;  
(cellulose) 61991-22-8, 68073-05-2, 9004-34-6; (gelatin) 9000-70-8;  
(hydroxycitric acid) 27750-10-3, 6205-14-7; (magnesium  
stearate) 557-04-0; (salicin) 138-52-3; (silicon dioxide) 10279-57-9,  
14464-46-1, 14808-60-7, 15468-32-3, 60676-86-0, 7631-86-9  
CN (1) muscle tech  
CO (1) R and D Systems

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ACCESSION NUMBER: 2003264089 EMBASE Full-text  
TITLE: Herbal preparations for obesity: Are they useful?.  
AUTHOR: Heber D.  
CORPORATE SOURCE: Dr. D. Heber, UCLA Center for Human Nutrition, University of California, 900 Veteran Avenue, Los Angeles, CA



SOURCE: 90095-1742, United States. dheber@mednet.ucla.edu  
 Primary Care - Clinics in Office Practice, (Jun 2003) Vol.  
 30, No. 2, pp. 441-463.  
 Refs: 118  
 ISSN: 0095-4543 CODEN: PRCADR  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; General Review; (Review)  
 FILE SEGMENT: 036 Health Policy, Economics and Management  
 037 Drug Literature Index  
 038 Adverse Reactions Titles  
 006 Internal Medicine  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 24 Jul 2003  
 Last Updated on STN: 24 Jul 2003

AB The opportunities for additional research in this area are plentiful. Unfortunately, there has been relatively limited funding for research on herbal supplements compared with the amount of funding that is available for research on pharmaceuticals. Botanical dietary supplements often contain complex mixtures of phytochemicals that have additive or synergistic interactions. For example, the tea catechins include a group of related compounds with effects that are demonstrable beyond those that are seen with epigallocatechin gallate, the most potent catechin. The metabolism of families of related compounds may be different than the metabolism of purified crystallized compounds. In some cases, herbal medicines may simply be less purified forms of single active ingredients, but in other cases they represent unique formulations of multiple, related compounds that may have superior safety and efficacy compared with single ingredients. Obesity is a global epidemic, and traditional herbal medicines may have more acceptance than prescription drugs in many cultures with emerging epidemics of obesity. Several ethnobotanical studies found herbal treatments for diabetes, and similar surveys, termed bioprospecting, for obesity treatments may be productive. Beyond increasing thermogenesis, there are other biological rationales for the actions of several different alternative medical and herbal approaches to weight loss. For example, several supplements and herbs claim to result in nutrient partitioning so that ingested calories will be directed to muscle, rather than fat. These include an herb (*Garcinia cambogia*), and a lipid which is the product of bacterial metabolism (conjugated linoleic acid). Moreover, a series of approaches attempt to physically affect gastric satiety by filling the stomach. Fiber swells after ingestion and has been found to result in increased satiety. A binding resin (Chitosan) has the ability to precipitate fat in the laboratory and is touted for its ability to bind fat in the intestines so that it is not absorbed. In double-blind studies, however, this approach was found to be ineffective. There are two key attractions of alternative treatments to obese patients. First, they are viewed as being natural and are assumed by patients to be safer than prescription drugs. Second, there is no perceived need for professional assistance with these approaches. For obese individuals who cannot afford to see a physician, these approaches often represent a more accessible solution. Finally, for many others, these approaches represent alternatives to failed attempts at weight loss with the use of more conventional approaches. These consumers are often discouraged by previous failures, and are likely to combine approaches or use these supplements at doses higher than are recommended. It is vital that the primary care physician is aware of the herbal preparations that are being used by patients so that any potential interaction with prescription drugs or underlying medical conditions can be anticipated. Unfortunately, there have been several instances where unscrupulous profiteers have plundered the resources of the obese public. Although Americans spend \$30 billion per year on weight loss aids, our regulatory and monitoring capability as a society are woefully inadequate. Without adequate resources, the FDA resorted to "guilt

by association" adverse events reporting, which often results in the loss of potentially helpful therapies without adequate investigation of the real causes of the adverse events that are reported. Scientific investigations of herbal and alternative therapies represent a potentially important source for new discoveries in obesity treatment and prevention. Cooperative interactions in research between the Office of Dietary Supplements, the National Center for Complementary and Alternative Medicine, and the FDA could lead to major advances in research on the efficacy and safety of the most promising of these alternative approaches.

CT Medical Descriptors:  
 agitation  
 cardiotoxicity: SI, side effect  
 clinical trial  
 controlled study  
 diarrhea: SI, side effect  
 dietary fiber  
 drug efficacy  
 drug safety  
 Ephedra sinica  
 euphoria  
 guarana  
 headache: SI, side effect  
 heart palpitation: SI, side effect  
 herbal medicine  
 human  
 hypertension: SI, side effect  
 insomnia: SI, side effect  
 muscle weakness: SI, side effect  
 \*obesity: DM, disease management  
 \*obesity: DT, drug therapy  
 plant  
 priority journal  
 randomized controlled trial  
 review  
 seizure: SI, side effect  
 side effect: SI, side effect  
 sour orange  
 stroke: SI, side effect  
 sudden death  
 tachycardia: SI, side effect  
 tea  
 tremor: SI, side effect  
 vertigo: SI, side effect  
 weight reduction  
 xerostomia: SI, side effect

CT Drug Descriptors:  
 amfepramone: CM, drug comparison  
 amfepramone: DT, drug therapy  
 amfepramone: PE, pharmacoeconomics  
 caffeine: CT, clinical trial  
 caffeine: CB, drug combination  
 caffeine: CM, drug comparison  
 caffeine: DT, drug therapy  
 caffeine: PE, pharmacoeconomics  
 caffeine: PD, pharmacology  
 caffeine plus ephedrine: CM, drug comparison  
 caffeine plus ephedrine: DT, drug therapy  
 caffeine plus ephedrine: PE, pharmacoeconomics  
 caffeine plus ephedrine: PD, pharmacology  
 capsaicin: PD, pharmacology

catechin  
 chitosan: CT, clinical trial  
 chitosan: DT, drug therapy  
 chitosan: PD, pharmacology  
 citrus fruit extract: PD, pharmacology  
 dexfenfluramine: AE, adverse drug reaction  
 dexfenfluramine: DT, drug therapy  
 elsinore pill: CM, drug comparison  
 elsinore pill: DT, drug therapy  
 elsinore pill: PR, pharmaceuticals  
 elsinore pill: PD, pharmacology  
 Ephedra extract: AE, adverse drug reaction  
 Ephedra extract: CB, drug combination  
 Ephedra extract: DT, drug therapy  
 ephedrine: AE, adverse drug reaction  
 ephedrine: CT, clinical trial  
 ephedrine: CB, drug combination  
 ephedrine: CM, drug comparison  
 ephedrine: DT, drug therapy  
 ephedrine: PE, pharmacoeconomics  
 ephedrine: PD, pharmacology  
 guarana extract: AE, adverse drug reaction  
 guarana extract: CB, drug combination  
 guarana extract: DT, drug therapy  
 \*herbaceous agent: AE, adverse drug reaction  
 \*herbaceous agent: DT, drug therapy  
 hydroxycitric acid  
 Hypericum perforatum extract: PD, pharmacology  
 linoleic acid  
 methylxanthine: CB, drug combination  
 methylxanthine: DT, drug therapy  
 phenobarbital  
 phenylephrine  
 theophylline: CB, drug combination  
 theophylline: DT, drug therapy  
 unclassified drug

RN (amfepramone) 134-80-5, 90-84-6; (caffeine) 30388-07-9, 58-08-2;  
 (capsaicin) 404-86-4; (catechin) 13392-26-2, 154-23-4; (chitosan)  
 9012-76-4; (dexfenfluramine) 3239-44-9, 3239-45-0; (ephedrine) 299-42-3,  
 50-98-6; (hydroxycitric acid) 27750-10-3, 6205-14-7;  
 (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (methylxanthine)  
 28109-92-4; (phenobarbital) 50-06-6, 57-30-7, 8028-68-0; (phenylephrine)  
 532-38-7, 59-42-7, 61-76-7; (theophylline) 58-55-9, 5967-84-0, 8055-07-0,  
 8061-56-1, 99007-19-9

CN elsinore pill

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ACCESSION NUMBER: 2003403701 EMBASE Full-text  
 TITLE: Effects of niacin-bound chromium, Maitake mushroom fraction SX and (-)-hydroxycitric acid on the metabolic syndrome in aged diabetic Zucker fatty rats.  
 AUTHOR: Talpur N.; Echard B.W.; Yasmin T.; Bagchi D.; Preuss H.G.  
 CORPORATE SOURCE: H.G. Preuss, Department of Physiology/Biophysics, Georgetown University Medical Center, 3900 Reservoir Road, N.W., Washington, DC 20057, United States.  
 preusshg@georgetown.edu  
 SOURCE: Molecular and Cellular Biochemistry, (Oct 2003) Vol. 252, No. 1-2, pp. 369-377.  
 Refs: 43

ISSN: 0300-8177 CODEN: MCBIB8  
 COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
 003 Endocrinology  
 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 23 Oct 2003  
 Last Updated on STN: 23 Oct 2003

AB Previous studies in our laboratories have demonstrated that niacin-bound chromium (NBC), Maitake mushroom and (-)-hydroxycitric acid (HCA-SX) can ameliorate hypertension, dyslipidemias and diabetes mellitus, and therefore may be useful in weight management. In the present study, we used aged, diabetic Zucker fatty rats (ZFR) (70-75 weeks) in order to determine whether NBC, fraction SX of Maitake mushroom (MSX) and 60% (-)-hydroxycitric acid (HCA-SX) from *Garcinia cambogia*, alone or in combination, can affect certain aspects of the metabolic syndrome. Syndrome X or metabolic syndrome has been described as a concurrence of disturbed glucose and insulin metabolism, overweight and abdominal fat distribution, mild dyslipidemia, and hypertension, which are associated with subsequent development of type 2 diabetes mellitus and cardiovascular disease. Four groups of eight ZFR were gavaged daily with different supplements. For the initial three weeks, the control group of ZFR received only water, the second group received NBC 40 mcg elemental chromium/day, the third group received MSX 100 mg/day and the last group received HCA-SX 200 mg/day. During weeks 4-6, the doses of each treatment were doubled. The control animals lost approximately 50 g body weight (BW) per rat over 6 weeks of treatment, which is characteristic of these animals in declining health. In contrast, eight ZFR receiving NBC lost approximately 9 g BW per rat, while rats consuming MSX lost 16 g BW per rat. However, ZFR receiving HCA-SX simulated the pattern in the control group because these animals lost approximately 46 g BW per rat. The wide individual variations resulted in a lack of statistical significance among groups. Nevertheless, 75% of the ZFR in the control group lost more than 50 g BW over the 6 weeks duration, whereas none of the ZFR receiving NBC, 25% of the ZFR receiving MSX and 57% of the ZFR receiving HCA-SX lost over 50 g BW over the 6 weeks of the study. ZFR in all 3 treatment groups showed significantly lower blood pressures as compared to control, which seemed to be dose related. The general trend was for renal and liver blood parameters, hepatic and renal lipid peroxidation and DNA fragmentation to improve due to the supplementation of these natural products. Treatment of animals with a combination of these three novel supplements resulted in a lower SBP and maintenance of BW compared to control animals. These results demonstrate that elderly diabetics and even aging individuals might benefit from a similar regimen.

CT Medical Descriptors:  
 abdomen  
 animal experiment  
 animal model  
 article  
 blood pressure measurement  
 body fat  
 body weight  
 cardiovascular disease  
 controlled study  
 \*diabetes mellitus  
   diet supplementation  
 dyslipidemia  
 feeding  
*Garcinia cambogia*

glucose metabolism  
 hematological parameters  
 hypertension  
 insulin metabolism  
 kidney  
 lipid liver level  
 lipid peroxidation  
 \*metabolic syndrome X: DT, drug therapy  
 \*metabolic syndrome X: TH, therapy  
 mushroom  
 non insulin dependent diabetes mellitus  
 nonhuman  
 obesity  
 rat  
 rat strain  
 statistical significance  
 systolic blood pressure

CT Drug Descriptors:

alanine aminotransferase: EC, endogenous compound  
 aspartate aminotransferase: EC, endogenous compound  
 \*chromium: CB, drug combination  
 \*chromium: CM, drug comparison  
 \*chromium: DO, drug dose  
 \*chromium: DT, drug therapy  
 \*chromium: PD, pharmacology  
 creatinine: EC, endogenous compound  
 DNA fragment: EC, endogenous compound  
 \*Garcinia extract: CB, drug combination  
 \*Garcinia extract: CM, drug comparison  
 \*Garcinia extract: DV, drug development  
 \*Garcinia extract: DT, drug therapy  
 \*Garcinia extract: PD, pharmacology  
 glucose: EC, endogenous compound  
 \*hydroxycitric acid: CB, drug combination  
 \*hydroxycitric acid: CM, drug comparison  
 \*hydroxycitric acid: DO, drug dose  
 \*hydroxycitric acid: DT, drug therapy  
 \*hydroxycitric acid: PD, pharmacology  
 insulin: EC, endogenous compound  
 lipid: EC, endogenous compound  
 malonaldehyde: EC, endogenous compound  
 nicotinic acid  
 nitrogen: EC, endogenous compound  
 \*plant extract: CB, drug combination  
 \*plant extract: CM, drug comparison  
 \*plant extract: DV, drug development  
 \*plant extract: DT, drug therapy  
 \*plant extract: PD, pharmacology  
 thiobarbituric acid reactive substance: EC, endogenous compound  
 unclassified drug  
 urea: EC, endogenous compound  
 water

RN (alanine aminotransferase) 9000-86-6, 9014-30-6; (aspartate  
 aminotransferase) 9000-97-9; (chromium) 16065-83-1, 7440-47-3;  
 (creatinine) 19230-81-0, 60-27-5; (glucose) 50-99-7, 84778-64-3;  
 (hydroxycitric acid) 27750-10-3, 6205-14-7; (insulin)  
 9004-10-8; (lipid) 66455-18-3; (malonaldehyde) 542-78-9; (nicotinic acid)  
 54-86-4, 59-67-6; (nitrogen) 7727-37-9; (urea) 57-13-6; (water) 7732-18-5

CO Interhealth (United States)

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ACCESSION NUMBER: 2004248642 EMBASE Full-text  
 TITLE: Body weight and abdominal fat gene expression profile in response to a novel hydroxycitric acid-based dietary supplement.  
 AUTHOR: Roy S.; Rink C.; Khanna S.; Phillips C.; Bagchi D.; Bagchi M.; Sen C.K.  
 CORPORATE SOURCE: Dr. C.K. Sen, 512 Davis Heart and Lung Res. Inst., Ohio State University Medical Center, 473 W. 12th Avenue, Columbus, OH 43210, United States. sen-1@medctr.osu.edu  
 SOURCE: Gene Expression, (2003) Vol. 11, No. 5-6, pp. 251-262.  
 Refs: 51  
 ISSN: 1052-2166 CODEN: GEEXEJ  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
 003 Endocrinology  
 037 Drug Literature Index  
 039 Pharmacy  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 1 Jul 2004  
 Last Updated on STN: 1 Jul 2004

AB Obesity is a global public health problem, with about 315 million people worldwide estimated to fall into the WHO-defined obesity categories. Traditional herbal medicines may have some potential in managing obesity. Botanical dietary supplements often contain complex mixtures of phytochemicals that have additive or synergistic interactions. The dried fruit rind of *Garcinia cambogia*, also known as Malabar tamarind, is a unique source of (-)-hydroxycitric acid (HCA), which exhibits a distinct sour taste and has been safely used for centuries in Southeastern Asia to make meals more filling. Recently it has been demonstrated that HCA-SX or Super Citrimax, a novel derivative of HCA, is safe when taken orally and that HCA-SX is bioavailable in the human plasma as studied by GC-MS. Although HCA-SX has been observed to be conditionally effective in weight management in experimental animals as well as in humans, its mechanism of action remains to be understood. We sought to determine the effects of low-dose oral HCA-SX on the body weight and abdominal fat gene expression profile of Sprague-Dawley rats. We observed that at doses relevant for human consumption dietary HCA-SX significantly contained body weight growth. This response was associated with lowered abdominal fat leptin expression while plasma leptin levels remained unaffected. Repeated high-density microarray analysis of 9960 genes and ESTs present in the fat tissue identified a small set (.apprx.1% of all genes screened) of specific genes sensitive to dietary HCA-SX. Other genes, including vital genes transcribing for mitochondrial/nuclear proteins and which are necessary for fundamental support of the tissue, were not affected by HCA-SX. Under the current experimental conditions, HCA-SX proved to be effective in restricting body weight gain in adult rats. Functional characterization of HCA-SX-sensitive genes revealed that upregulation of genes encoding serotonin receptors represent a distinct effect of dietary HCA-SX supplementation.

CT Medical Descriptors:  
 abdomen  
 animal experiment  
 article  
 bioavailability  
 body fat  
 body weight  
 controlled study

\*diet supplementation  
 dietary intake  
 enzyme linked immunosorbent assay  
 gas chromatography  
 gene expression  
 hormone blood level  
 low drug dose  
 mass spectrometry  
 nonhuman  
 nucleotide sequence  
 \*obesity: ET, etiology  
 phytochemistry  
 rat  
 real time polymerase chain reaction  
 CT Drug Descriptors:  
 \*hydroxycitric acid: DO, drug dose  
 \*hydroxycitric acid: PO, oral drug administration  
 \*hydroxycitric acid: PR, pharmaceuticals  
 \*leptin: EC, endogenous compound  
 messenger RNA  
 plant extract: DO, drug dose  
 plant extract: PO, oral drug administration  
 plant extract: PR, pharmaceuticals  
 serotonin  
 serotonin receptor  
 supe citrimax hca 600 sxs  
 RN (hydroxycitric acid) 27750-10-3, 6205-14-7;  
 (serotonin) 50-67-9  
 CN (1) supe citrimax hca 600 sxs  
 CO (1) Interhealth (United States)

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ACCESSION NUMBER: 2002242145 EMBASE Full-text  
 TITLE: Short-term (-)-hydroxycitrate ingestion increases fat oxidation during exercise in athletes.  
 AUTHOR: Lim K.; Ryu S.; Ohishi Y.; Watanabe I.; Tomi H.; Suh H.; Lee W.-K.; Kwon T.  
 CORPORATE SOURCE: K. Lim, Institute of Elderly Health, #948-27 Dokok-dong, Kangnam-gu, Seoul, Korea, Republic of. kwlim21@hotmail.com  
 SOURCE: Journal of Nutritional Science and Vitaminology, (2002) Vol. 48, No. 2, pp. 128-133.  
 Refs: 26  
 ISSN: 0301-4800 CODEN: JNSVA5  
 COUNTRY: Japan  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 029 Clinical and Experimental Biochemistry  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 25 Jul 2002  
 Last Updated on STN: 25 Jul 2002  
 AB (-)-Hydroxycitrate (HCA) is known to inhibit increasing malonyl CoA concentration during endurance exercise. Furthermore, a short-term administration of HCA enhances endurance exercise performance in mice. Therefore we investigated the short-term administration of HCA on the exercise performance of athletes. Subjects were administered 250 mg of HCA or placebo as a control (CON) for 5 d, after each time performing cycle ergometer exercise at 60% VO(2)max for 60 min followed by 80% VO(2)max until exhaustion.

Blood was collected and expired gas samples analyzed at rest and every 15 min. The respiratory exchange ratio was significantly lower in the HCA trial than in the CON trial ( $p < 0.05$ ). Fat oxidation was significantly increased by short-term administration of HCA, and carbohydrate oxidation was significantly decreased ( $p < 0.05$ ) during exercise, presumably resulting in increasing the cycle ergometer exercise time to exhaustion after 1 h of 60%  $\text{VO}(2)_{\text{max}}$  exercise ( $p < 0.05$ ). These results suggest that a short-term administration of HCA enhances endurance performance with increasing fat oxidation, which spares glycogen utilization during moderate intensity exercise in athletes.

## CT Medical Descriptors:

adult  
 article  
 bicycle ergometer  
 clinical article  
 clinical trial  
 controlled clinical trial  
 controlled study  
   \*diet supplementation  
 \*exercise  
 human  
 \*lipid oxidation  
 lung gas exchange  
 male  
 oxygen consumption  
 randomized controlled trial

## CT Drug Descriptors:

carbohydrate: EC, endogenous compound  
 \*fat: EC, endogenous compound  
 \*hydroxycitric acid: PD, pharmacology

RN (hydroxycitric acid) 27750-10-3, 6205-14-7

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ACCESSION NUMBER: 2003149853 EMBASE Full-text

TITLE: Pharmacologic agents for weight reduction.

AUTHOR: Haller C.; Schwartz J.B.

CORPORATE SOURCE: Dr. J.B. Schwartz, Long-Term Care Research Center,  
 Institute on Aging/Jewish Home, University of California,  
 302 Silver Ave., San Francisco, CA 94112, United States

SOURCE: Journal of Gender-Specific Medicine, (Sep 2002) Vol. 5, No. 5, pp. 16-21.

Refs: 36

ISSN: 1523-7036 CODEN: JGMOA7

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 038 Adverse Reactions Titles  
 006 Internal Medicine

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 24 Apr 2003

Last Updated on STN: 24 Apr 2003

AB Obesity is a major health problem in U.S. adults. Most successful weight loss programs have multiple components, including lifestyle modifications, reduced caloric intake, and exercise. Short-term use of medications for weight loss may be a part of such a plan. Currently, most medications are adrenergic stimulants and can produce adverse CNS and cardiovascular effects. Antiabsorptive agents appear to be safer but have significant GI side effects. An important finding is the potential for adverse life-threatening effects



with over-the-counter products and dietary supplements that do not undergo evaluation similar to prescription drugs. The search continues for safe and effective pharmacologic agents to assist in weight loss.

CT Medical Descriptors:

caloric intake  
 cardiovascular disease: SI, side effect  
 central nervous system disease: SI, side effect  
 diet therapy  
 drug efficacy  
 drug metabolism  
 drug safety  
 dysmenorrhea: SI, side effect  
 flatulence: SI, side effect  
 gastrointestinal disease: SI, side effect  
 headache: SI, side effect  
 human  
 insomnia: SI, side effect  
 kinesiotherapy  
 lifestyle  
 \*obesity: DT, drug therapy  
 \*obesity: TH, therapy  
 prescription  
 review  
 tremor: SI, side effect  
 United States  
 weight reduction  
 xerostomia: SI, side effect

CT Drug Descriptors:

adrenergic receptor stimulating agent: AE, adverse drug reaction  
 adrenergic receptor stimulating agent: DO, drug dose  
 adrenergic receptor stimulating agent: IT, drug interaction  
 adrenergic receptor stimulating agent: DT, drug therapy  
 adrenergic receptor stimulating agent: PD, pharmacology  
 alpha 1 adrenergic receptor: EC, endogenous compound  
 amfepramone: AE, adverse drug reaction  
 amfepramone: DO, drug dose  
 amfepramone: DT, drug therapy  
 amfepramone: PD, pharmacology  
 amphetamine derivative: AE, adverse drug reaction  
 amphetamine derivative: DO, drug dose  
 amphetamine derivative: IT, drug interaction  
 amphetamine derivative: DT, drug therapy  
 amphetamine derivative: PD, pharmacology  
 anorexigenic agent: AE, adverse drug reaction  
 anorexigenic agent: DO, drug dose  
 anorexigenic agent: IT, drug interaction  
 anorexigenic agent: DT, drug therapy  
 anorexigenic agent: PD, pharmacology  
 antimetabolite: AE, adverse drug reaction  
 antimetabolite: DO, drug dose  
 antimetabolite: DT, drug therapy  
 antimetabolite: PD, pharmacology  
 benzphetamine: AE, adverse drug reaction  
 benzphetamine: DO, drug dose  
 benzphetamine: IT, drug interaction  
 benzphetamine: DT, drug therapy  
 benzphetamine: PD, pharmacology  
 beta 2 adrenergic receptor: EC, endogenous compound  
 caffeine: AE, adverse drug reaction  
 caffeine: PD, pharmacology

cytochrome P450: EC, endogenous compound  
dexfenfluramine: AE, adverse drug reaction  
dexfenfluramine: DT, drug therapy  
dexfenfluramine: PD, pharmacology  
dopamine: EC, endogenous compound  
ephedrine: AE, adverse drug reaction  
ephedrine: PD, pharmacology  
fenfluramine: AE, adverse drug reaction  
fenfluramine: DT, drug therapy  
fenfluramine: PD, pharmacology  
hydroxycitric acid: AE, adverse drug reaction  
hydroxycitric acid: PD, pharmacology  
mazindol: AE, adverse drug reaction  
mazindol: DO, drug dose  
mazindol: DT, drug therapy  
mazindol: PD, pharmacology  
methamphetamine  
monoamine oxidase inhibitor: IT, drug interaction  
non prescription drug: AE, adverse drug reaction  
non prescription drug: DT, drug therapy  
noradrenalin: EC, endogenous compound  
noradrenalin uptake inhibitor: AE, adverse drug reaction  
noradrenalin uptake inhibitor: DO, drug dose  
noradrenalin uptake inhibitor: DT, drug therapy  
noradrenalin uptake inhibitor: PD, pharmacology  
obenix  
oxedrine: AE, adverse drug reaction  
oxedrine: PD, pharmacology  
phendimetrazine: AE, adverse drug reaction  
phendimetrazine: DT, drug therapy  
phendimetrazine: PD, pharmacology  
phenmetrazine: AE, adverse drug reaction  
phenmetrazine: DT, drug therapy  
phenmetrazine: PD, pharmacology  
phentercot  
phentermine: AE, adverse drug reaction  
phentermine: DO, drug dose  
phentermine: DT, drug therapy  
phentermine: PD, pharmacology  
phentermine resin  
phentride  
phenylpropanolamine: AE, adverse drug reaction  
phenylpropanolamine: PD, pharmacology  
pro fast  
sennoside: AE, adverse drug reaction  
sennoside: PD, pharmacology  
serotonin uptake inhibitor: AE, adverse drug reaction  
serotonin uptake inhibitor: DO, drug dose  
serotonin uptake inhibitor: IT, drug interaction  
serotonin uptake inhibitor: DT, drug therapy  
serotonin uptake inhibitor: PD, pharmacology  
sibutramine: AE, adverse drug reaction  
sibutramine: DO, drug dose  
sibutramine: IT, drug interaction  
sibutramine: DT, drug therapy  
sibutramine: PK, pharmacokinetics  
sibutramine: PD, pharmacology  
tetrahydrolipstatin: AE, adverse drug reaction  
tetrahydrolipstatin: DO, drug dose  
tetrahydrolipstatin: DT, drug therapy

tetrahydrolipstatin: PD, pharmacology  
 unindexed drug  
 zantryl

RN (amfepramone) 134-80-5, 90-84-6; (benzphetamine) 156-08-1, 5411-22-3;  
 (caffeine) 30388-07-9, 58-08-2; (cytochrome P450) 9035-51-2;  
 (dexfenfluramine) 3239-44-9, 3239-45-0; (dopamine) 51-61-6, 62-31-7;  
 (ephedrine) 299-42-3, 50-98-6; (fenfluramine) 404-82-0, 458-24-2;  
 (hydroxycitric acid) 27750-10-3, 6205-14-7; (mazindol)  
 22232-71-9; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2;  
 (noradrenalin) 1407-84-7, 51-41-2; (oxedrine) 94-07-5; (phendimetrazine)  
 634-03-7; (phenmetrazine) 134-49-6, 1707-14-8, 57919-12-7; (phentermine)  
 1197-21-3, 122-09-8; (phenylpropanolamine) 14838-15-4, 154-41-6,  
 4345-16-8, 48115-38-4; (sennoside) 517-43-1, 62211-03-4; (sibutramine)  
 106650-56-0; (tetrahydrolipstatin) 96829-58-2  
 CN adipex; didrex; fastin; ionamin; mazanor; meridia; obenix; phentercot;  
 phentride; pondimin; pro fast; redux; sanorex; tenuate; xenical; zantryl

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ACCESSION NUMBER: 2002423937 EMBASE Full-text  
 TITLE: Functional foods and food supplements  
 for athletes: From myths to benefit claims substantiation  
 through the study of selected biomarkers.  
 AUTHOR: Brouns F.; Van Nieuwenhoven M.; Jeukendrup A.; Van Marken  
 Lichtenbelt W.  
 CORPORATE SOURCE: Dr. F. Brouns, Nutr./Toxicol. Res. Inst. Maastricht,  
 Maastricht University, Maastricht, Netherlands.  
 fbrouns@be.cerestar.com  
 SOURCE: British Journal of Nutrition, (1 Nov 2002) Vol. 88, No.  
 SUPPL. 2, pp. S177-S186.  
 Refs: 82  
 ISSN: 0007-1145 CODEN: BJNUAV  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Conference Article; (Conference paper)  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 029 Clinical and Experimental Biochemistry  
 035 Occupational Health and Industrial Medicine  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 5 Dec 2002  
 Last Updated on STN: 5 Dec 2002

AB The development of the sports food market and industrial involvement have led  
 to numerous nutritional studies to define the type of nutrients that are most  
 suited to support energy metabolism, fluid balance and muscle function. The  
 key question in many of these studies was: 'Does the product lead to a  
 significant product/consumer benefit that can be used as a claim on the  
 package?' New methods and techniques have been developed, partly with  
 sponsorship of the food industry, with the goal of measuring the effects of  
 specific nutrients and supplements on athletic performance and metabolism. In  
 line with this development, a wide variety of supplements and sports  
 foods/drinks labelled with various performance or health benefit statements  
 have been launched on the sports nutrition market. Although a variety of  
 products have been tested clinically, there are also many products on the  
 market with benefit claims that cannot be supported by sound nutritional and  
 sports physiological science. The current short review highlights some of the  
 methods and biomarkers that are used to substantiate product/consumer benefit  
 claims for foods and drinks that are marketed as functional foods for  
 athletes.  
 CT Medical Descriptors:  
 athlete

beverage  
 blood flow  
 bone mass  
 carbohydrate metabolism  
 cartilage  
 conference paper  
 dehydration  
   \*diet supplementation  
 dietary intake  
 energy metabolism  
 fluid balance  
 fluid retention  
 food industry  
 gastrointestinal tract function  
 glycogen liver level  
 glycogen muscle level  
 \*health food  
 hormone release  
 hydration  
 immunosuppressive treatment  
 lipolysis  
 muscle cramp  
 muscle function  
 muscle injury  
 muscle mass  
 nerve stimulation  
 nutrition  
 physical performance  
 protein synthesis  
 sports medicine  
 synovial fluid level  
 water content

CT Drug Descriptors:  
 adenine nucleotide  
 arginine  
 \*biological marker  
 branched chain amino acid  
 caffeine  
 carbohydrate  
 carnitine  
 chitosan  
 chromium picolinate  
 creatine  
 fat: EC, endogenous compound  
 fructose: EC, endogenous compound  
 glucosamine  
 glucose: EC, endogenous compound  
 glucose polymer: EC, endogenous compound  
 glycogen: EC, endogenous compound  
 hormone: EC, endogenous compound  
 hydroxycitric acid  
 lysine  
 medium chain triacylglycerol  
 mineral  
 phytoestrogen  
 proline  
 pyruvic acid  
 sodium  
 trace element  
 tyrosine

unindexed drug  
 vitamin  
 vitamin K group

RN (arginine) 1119-34-2, 15595-35-4, 7004-12-8, 74-79-3; (caffeine) 30388-07-9, 58-08-2; (carnitine) 461-06-3, 541-15-1, 56-99-5; (chitosan) 9012-76-4; (chromium picolinate) 14639-25-9; (creatine) 57-00-1; (fructose) 30237-26-4, 57-48-7, 7660-25-5, 77907-44-9; (glucosamine) 3416-24-8, 4607-22-1; (glucose polymer) 25191-16-6; (glucose) 50-99-7, 84778-64-3; (glycogen) 9005-79-2; (hydroxycitric acid) 27750-10-3, 6205-14-7; (lysine) 56-87-1, 6899-06-5, 70-54-2; (proline) 147-85-3, 7005-20-1; (pyruvic acid) 127-17-3, 19071-34-2, 57-60-3; (sodium) 7440-23-5; (tyrosine) 16870-43-2, 55520-40-6, 60-18-4; (vitamin K group) 12001-79-5

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ACCESSION NUMBER: 2001221003 EMBASE Full-text  
 TITLE: The effects of 2-week ingestion of (-)-hydroxycitrate and (-)-hydroxycitrate combined with medium-chain triglycerides on satiety, fat oxidation, energy expenditure and body weight.  
 AUTHOR: Kovacs E.M.R.; Westerterp-Plantenga M.S.; Saris W.H.M.  
 CORPORATE SOURCE: E.M.R. Kovacs, Department of Human Biology, Maastricht University, PO Box 616, 6200 MD Maastricht, Netherlands. E.Kovacs@HB.UNIMAAS.NL  
 SOURCE: International Journal of Obesity, (2001) Vol. 25, No. 7, pp. 1087-1094.  
 Refs: 60  
 ISSN: 0307-0565 CODEN: IJOB DP  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 003 Endocrinology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 19 Jul 2001  
 Last Updated on STN: 19 Jul 2001

AB OBJECTIVE: Assessment of the effect of 2-week supplementation with (-)-hydroxycitrate (HCA) and HCA combined with medium-chain triglycerides (MCT) on satiety, fat oxidation, energy expenditure (EE) and body weight (BW) loss. DESIGN: Three intervention periods of 2 weeks separated by washout periods of 4 weeks. Double-blind, placebo-controlled, randomised and cross-over design. SUBJECTS: Eleven overweight male subjects (mean  $\pm$  s.d.; age,  $47 \pm 16$  y; body mass index,  $27.4 \pm 8.2$  kg/m<sup>2</sup>). INTERVENTION: Subjects consumed three self-selected meals and four iso-energetic (420 kJ) snacks daily with either no supplementation (PLA), 500 mg HCA (HCA) or 500 mg HCA and 3 g MCT (HCA + MCT). Each intervention ended with a 36 h stay in the respiration chamber. RESULTS: There was a significant BW loss during the 2 weeks of intervention (PLA,  $-1.0 \pm 0.4$  kg,  $P < 0.05$ ; HCA,  $-1.5 \pm 0.5$  kg,  $P < 0.01$ ; HCA + MCT,  $-1.3 \pm 0.2$  kg,  $P < 0.001$ ), but this reduction was not different between treatments. 24 h EE (PLA,  $11.8 \pm 0.2$  MJ; HCA,  $11.7 \pm 0.1$  MJ; HCA + MCT,  $11.5 \pm 0.1$  MJ), 24h RQ ( $0.85 \pm 0.00$  in all treatments) and the area under the curve of the appetite-related parameters were not different between treatments. CONCLUSION: Two-week supplementation with HCA and HCA combined with MCT did not result in increased satiety, fat oxidation, 24 h EE or BW loss compared to PLA, in subjects losing BW.

CT Medical Descriptors:  
 adult  
 anthropometry

article  
 blood analysis  
 \*body weight  
 caloric intake  
 calorimetry  
 clinical article  
 clinical trial  
 controlled study  
   \*diet supplementation  
 double blind procedure  
 \*energy expenditure  
 feeding behavior  
 human  
 \*lipid oxidation  
 male  
 mood  
 \*obesity: DT, drug therapy  
 priority journal  
 \*satiety  
 statistical analysis  
 weight reduction

## CT Drug Descriptors:

\*fat: EC, endogenous compound  
 \*hydroxycitric acid: CT, clinical trial  
 \*hydroxycitric acid: CB, drug combination  
 \*hydroxycitric acid: DT, drug therapy  
 \*medium chain triacylglycerol: CT, clinical trial  
 \*medium chain triacylglycerol: CB, drug combination  
 \*medium chain triacylglycerol: DT, drug therapy  
 supercitrimax hca 600 sxx

RN (hydroxycitric acid) 27750-10-3, 6205-14-7

CN (1) supercitrimax hca 600 sxx

CO (1) eurochem (Germany)

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ACCESSION NUMBER: 2002033982 EMBASE Full-text

TITLE: Effects of 2-week ingestion of (-)-hydroxycitrate and (-)-hydroxycitrate combined with medium-chain triglycerides on satiety and food intake.

AUTHOR: Kovacs E.M.R.; Westerterp-Plantenga M.S.; De Vries M.; Brouns F.; Saris W.H.M.

CORPORATE SOURCE: E.M.R. Kovacs, Department of Human Biology, Maastricht University, PO Box 616, 6200 MD Maastricht, Netherlands. e.kovacs@hb.unimaas.nl

SOURCE: Physiology and Behavior, (12 Nov 2001) Vol. 74, No. 4-5, pp. 543-549.

Refs: 46

ISSN: 0031-9384 CODEN: PHBHA4

PUBLISHER IDENT.: S 0031-9384(01)00594-7

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 002 Physiology  
 030 Clinical and Experimental Pharmacology  
 032 Psychiatry  
 037 Drug Literature Index  
 008 Neurology and Neurosurgery

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 7 Feb 2002

Last Updated on STN: 7 Feb 2002

AB The aim of this study was to assess the effects of 2 weeks of supplementation with (-)-hydroxycitrate (HCA) and HCA combined with medium-chain triglycerides (MCT) on satiety and energy intake. The experimental design consisted of three intervention periods of 2 weeks separated by washout periods of 2 or 6 weeks in a double-blind, placebo-controlled, randomized, and crossover design. Seven male and 14 female normal to moderately obese subjects (mean  $\pm$  S.D.; age,  $43 \pm 10$  years; body mass index,  $27.6 \pm 2.0$  kg/m<sup>2</sup>) participated in this study. Subjects consumed three self-selected meals and four isoenergetic snacks daily with either no supplementation (PLA), with 500 mg HCA (HCA), or 500 mg HCA and 3 g MCT (HCA + MCT). Each intervention period ended with a test day, consisting of a standardized breakfast and ad libitum a lunch and a dinner. There was a significant body weight (BW) loss during the 2 weeks of intervention (PLA,  $-0.5 \pm 0.3$  kg,  $P < .05$ ; HCA,  $-0.4 \pm 0.2$  kg,  $P < .05$ ; HCA + MCT,  $-0.7 \pm 0.2$  kg,  $P < .01$ ), but this reduction was not different between treatments. Twenty-four-hour energy intake (PLA,  $8.1 \pm 0.3$  MJ; HCA,  $8.3 \pm 0.3$  MJ; HCA + MCT,  $8.4 \pm 0.3$  MJ) and the area under the curve of the appetite-related parameters during the test day were similar for all treatments. Two weeks of supplementation with HCA and HCA combined with MCT did not result in increased satiety or decreased energy intake compared to placebo in subjects losing BW. .COPYRGT. 2001 Elsevier Science Inc. All rights reserved.

CT Medical Descriptors:

adult  
age  
appetite  
area under the curve  
article  
body mass  
caloric intake  
clinical trial  
controlled clinical trial  
controlled study  
crossover procedure  
\*diet supplementation  
double blind procedure  
female  
\*food intake  
human  
ingestion  
male  
meal  
obesity  
priority journal  
randomized controlled trial  
\*satiety  
time  
weight reduction

CT Drug Descriptors:

\*hydroxycitric acid: CT, clinical trial  
\*hydroxycitric acid: PD, pharmacology  
\*medium chain triacylglycerol: CT, clinical trial  
\*medium chain triacylglycerol: PD, pharmacology

RN (hydroxycitric acid) 27750-10-3, 6205-14-7

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ACCESSION NUMBER: 2001312864 EMBASE Full-text

TITLE: Hepatothermic therapy of obesity: Rationale and an inventory of resources.

AUTHOR: McCarty M.F

CORPORATE SOURCE: M.F. McCarty, Pantox Laboratories, 4622 Santa Fe Street,  
San Diego, CA 92109, United States

SOURCE: Medical Hypotheses, (2001) Vol. 57, No. 3, pp. 324-336.  
Refs: 169  
ISSN: 0306-9877 CODEN: MEHYDY

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
029 Clinical and Experimental Biochemistry  
003 Endocrinology  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20 Sep 2001  
Last Updated on STN: 20 Sep 2001

AB Hepatothermic therapy (HT) of obesity is rooted in the observation that the liver has substantial capacities for both fatty acid oxidation and for thermogenesis. When hepatic fatty acid oxidation is optimized, the newly available free energy may be able to drive hepatic thermogenesis, such that respiratory quotient declines while basal metabolic rate increases, a circumstance evidently favorable for fat loss. Effective implementation of HT may require activation of carnitine palmitoyl transferase-1 (rate-limiting for fatty acid beta-oxidation), an increase in mitochondrial oxaloacetate production (required for optimal Krebs cycle activity), and up-regulation of hepatic thermogenic pathways. The possible utility of various natural agents and drugs for achieving these objectives is discussed. Potential components of HT regimens include EPA-rich fish oil, sesamin, hydroxycitrate, pantethine, L-carnitine, pyruvate, aspartate, chromium, coenzyme Q10, green tea polyphenols, conjugated linoleic acids, DHEA derivatives, cilostazol, diazoxide, and fibrate drugs. Aerobic exercise training and very-low-fat, low-glycemic-index, high-protein or vegan food choices may help to establish the hormonal environment conducive to effective HT. High-dose biotin and/or metformin may help to prevent an excessive increase in hepatic glucose output. Since many of the agents contemplated as components of HT regimens are nutritional or food-derived compounds likely to be health protective, HT is envisioned as an on-going lifestyle rather than as a temporary 'quick fix'. Initial clinical efforts to evaluate the potential of HT are now in progress. .COPYRGT. 2001 Harcourt Publishers Ltd.

CT Medical Descriptors:  
aerobic metabolism  
article  
diet supplementation  
enzyme activation  
exercise  
fatty acid oxidation  
glucogenesis  
glucose intake  
human  
lifestyle  
\*liver metabolism  
low fat diet  
mitochondrial respiration  
\*obesity: DT, drug therapy  
\*obesity: TH, therapy  
priority journal  
protein diet  
respiratory quotient  
\*thermogenesis

CT Drug Descriptors:  
aspartic acid



biotin: DO, drug dose  
 biotin: DT, drug therapy  
 carnitine  
 carnitine palmitoyltransferase  
 chromium  
 cilostazol: DT, drug therapy  
 diazoxide  
 fibric acid derivative: DT, drug therapy  
 fish oil  
 glucagon  
 hydroxycitric acid  
 icosapentaenoic acid  
 insulin  
 linoleic acid  
 metformin: DO, drug dose  
 metformin: DT, drug therapy  
 oxaloacetic acid  
 pantethine  
 polyphenol  
 prasterone: DT, drug therapy  
 pyruvic acid  
 sesamin  
 ubiquinone

RN (aspartic acid) 56-84-8, 6899-03-2; (biotin) 58-85-5; (carnitine  
 palmitoyltransferase) 9068-41-1; (carnitine) 461-06-3, 541-15-1, 56-99-5;  
 (chromium) 16065-83-1, 7440-47-3; (cilostazol) 73963-72-1; (diazoxide)  
 364-98-7; (fish oil) 8016-13-5; (glucagon) 11140-85-5, 62340-29-8,  
 9007-92-5; (hydroxycitric acid) ~~27750-10-3~~, 6205-14-7;  
 (icosapentaenoic acid) 25378-27-2, 32839-30-8; (insulin) 9004-10-8;  
 (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (metformin)  
 1115-70-4, 657-24-9; (oxaloacetic acid) 149-63-3, 328-42-7; (pantethine)  
 16816-67-4; (polyphenol) 37331-26-3; (prasterone) 53-43-0; (pyruvic acid)  
 127-17-3, 19071-34-2, 57-60-3; (sesamin) 607-80-7, 7076-24-6; (ubiquinone)  
 1339-63-5

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ACCESSION NUMBER: 2000424990 EMBASE Full-text  
 TITLE: Effects of acute (-)-hydroxycitrate supplementation on  
 substrate metabolism at rest and during exercise in humans.  
 AUTHOR: Van Loon L.J.C.; Van Rooijen J.J.M.; Niesen B.; Verhagen  
 H.; Saris W.H.M.; Wagenmakers A.J.M.  
 CORPORATE SOURCE: L.J.C. Van Loon, Department of Human Biology, Maastricht  
 University, PO Box 616, 6200 MD Maastricht, Netherlands.  
 l.vanloon@hb.unimaas.nl  
 SOURCE: American Journal of Clinical Nutrition, (2000) Vol. 72, No.  
 6, pp. 1445-1450.  
 Refs: 33  
 ISSN: 0002-9165 CODEN: AJCNAC  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 002 Physiology  
 029 Clinical and Experimental Biochemistry  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 21 Dec 2000  
 Last Updated on STN: 21 Dec 2000

- AB Background: (-)-Hydroxycitrate (HCA), a competitive inhibitor of ATP-citrate lyase, should reduce the extramitochondrial acetyl-CoA pool. It has been hypothesized that HCA ingestion can reduce malonyl-CoA concentrations and consequently increase fatty acid oxidation in vivo. Objective: This study investigated the acute effects of HCA supplementation on substrate utilization at rest and during exercise in endurance-trained humans. Design: Ten cyclists [(x ± SD) age: 24 ± 2 y, weight: 73 ± 2 kg, maximal oxygen uptake: 4.95 ± 0.11 L/min, maximal work output (Wmax): 408 ± 8 W] were studied at rest and during 2 h of exercise at 50% Wmax on 2 occasions. Both 45 and 15 min before exercise and 30 and 60 min after the start of exercise, 3.1 mL/kg body wt of an HCA solution (19 g/L) or placebo was ingested. Total fat and carbohydrate oxidation rates were assessed. Blood samples were collected at 15-min intervals at rest and every 30 min during exercise. Results: Plasma HCA concentrations increased after HCA ingestion up to 0.39 ± 0.02 mmol/L (82.0 ± 4.8 mg/L). However, no significant differences in total fat and carbohydrate oxidation rates were observed between trials. Accordingly, plasma glucose, glycerol, and fatty acid concentrations did not differ between trials. Plasma lactate concentrations were significantly lower in the HCA than in the placebo trial after 30 min of exercise but at the end of the exercise period they did not differ between trials. Conclusion: HCA, even when provided in large quantities, does not increase total fat oxidation in vivo in endurance-trained humans.
- CT Medical Descriptors:  
 adult  
 article  
 athlete  
 \*basal metabolic rate  
 carbohydrate metabolism  
 clinical trial  
 controlled study  
 cycling  
 \*diet supplementation  
 drug effect  
 endurance  
 \*exercise  
 fatty acid oxidation  
 human  
 lactate blood level  
 normal human  
 oxygen consumption
- CT Drug Descriptors:  
 citramax hca 450 ls  
 fatty acid  
 Garcinia cambogia extract: CT, clinical trial  
 Garcinia cambogia extract: PO, oral drug administration  
 Garcinia cambogia extract: PD, pharmacology  
 glucose  
 glycerol  
 \*hydroxycitric acid: CT, clinical trial  
 \*hydroxycitric acid: PO, oral drug administration  
 \*hydroxycitric acid: PD, pharmacology  
 lactic acid  
 plant extract: CT, clinical trial  
 plant extract: PO, oral drug administration  
 plant extract: PD, pharmacology  
 unclassified drug
- RN (glucose) 50-99-7, 84778-64-3; (glycerol) 56-81-5; (hydroxycitric acid) 27750-10-3, 6205-14-7; (lactic acid) 113-21-3, 50-21-5
- CN (1) citramax hca 450 ls
- CO (1) Interhealth (United States)

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ACCESSION NUMBER: 2000327233 EMBASE Full-text  
 TITLE: Alternative therapies: Part I. Depression, diabetes, obesity.  
 AUTHOR: Morelli V.; Zoorob R.J.  
 CORPORATE SOURCE: Dr. V. Morelli, LSU, Health Sciences Center, Family Practice Residency Program, 200 W. Esplanade Ave., Kenner, LA 70065, United States  
 SOURCE: American Family Physician, (1 Sep 2000) Vol. 62, No. 5, pp. 1051-1060.  
 Refs: 50  
 ISSN: 0002-838X CODEN: AFPYAE  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; General Review; (Review)  
 FILE SEGMENT: 030 Clinical and Experimental Pharmacology  
 032 Psychiatry  
 037 Drug Literature Index  
 038 Adverse Reactions Titles  
 006 Internal Medicine  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 5 Oct 2000  
 Last Updated on STN: 5 Oct 2000

AB Natural supplements are widely used in the United States and, while claims of their therapeutic effects abound, medical research does not always support their effectiveness. St. John's wort acts as a weak selective serotonin reuptake inhibitor with fewer side effects. S-Adenosylmethionine (SAME) has enough of an antidepressant effect to warrant further research. More human studies are needed before garlic, bitter melon, soy and fenugreek supplements can be recommended for the management of diabetes, although chromium may be a promising treatment in some cases. Alpha lipoic acid is used in the treatment of diabetic neuropathy. The effects of ma huang/guarana combinations in obesity have not been well studied. These combinations may have potentially serious side effects but may also offer some benefit. The combination of hydroxycitric acid and garcinia has proved no more effective than placebo.

CT Medical Descriptors:  
 abdominal pain: SI, side effect  
 agitation  
 \*depression: DT, drug therapy  
 \*diabetes mellitus  
 diabetic neuropathy: DT, drug therapy  
 \*diet supplementation  
 drug efficacy  
 drug induced disease: SI, side effect  
 drug mechanism  
 drug safety  
 garlic: DT, drug therapy  
 garlic: PD, pharmacology  
 human  
 \*Hypericum perforatum: AE, adverse drug reaction  
 \*Hypericum perforatum: CM, drug comparison  
 \*Hypericum perforatum: IT, drug interaction  
 \*Hypericum perforatum: DT, drug therapy  
 \*Hypericum perforatum: PD, pharmacology  
 indigestion: SI, side effect  
 insomnia: SI, side effect  
 \*obesity  
 photosensitivity: SI, side effect

review  
 tremor: SI, side effect  
 vomiting: SI, side effect  
 CT Drug Descriptors:  
 amitriptyline: CM, drug comparison  
 amitriptyline: DT, drug therapy  
 \*chromium: AE, adverse drug reaction  
 \*chromium: DT, drug therapy  
 \*chromium: PD, pharmacology  
 cyclosporin A: IT, drug interaction  
 digoxin: IT, drug interaction  
 \*ephedrine: AE, adverse drug reaction  
 \*ephedrine: DT, drug therapy  
 \*ephedrine: PD, pharmacology  
 guggulsterone  
 \*hydroxycitric acid: AE, adverse drug reaction  
 \*hydroxycitric acid: DT, drug therapy  
 \*hydroxycitric acid: PD, pharmacology  
 imipramine: CM, drug comparison  
 imipramine: DT, drug therapy  
 indinavir: IT, drug interaction  
 \*s adenosylmethionine: DT, drug therapy  
 \*s adenosylmethionine: PD, pharmacology  
 serotonin uptake inhibitor  
 theophylline: IT, drug interaction  
 \*thioctic acid: DT, drug therapy  
 \*thioctic acid: PD, pharmacology  
 tricyclic antidepressant agent  
 RN (amitriptyline) 50-48-6, 549-18-8; (chromium) 16065-83-1, 7440-47-3;  
 (cyclosporin A) 59865-13-3, 63798-73-2; (digoxin) 20830-75-5, 57285-89-9;  
 (ephedrine) 299-42-3, 50-98-6; (guggulsterone) 39025-23-5, 39025-24-6,  
 95975-55-6; (hydroxycitric acid) 27750-10-3, 6205-14-7  
 ; (imipramine) 113-52-0, 50-49-7; (indinavir) 150378-17-9, 157810-81-6,  
 180683-37-8; (s adenosylmethionine) 29908-03-0, 485-80-3; (theophylline)  
 58-55-9, 5967-84-0, 8055-07-0, 8061-56-1, 99007-19-9; (thioctic acid)  
 1077-29-8, 1200-22-2, 2319-84-8, 62-46-4  
 CN elavil; sandimmune; tofranil

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ACCESSION NUMBER: 2000135943 EMBASE Full-text  
 TITLE: Toward a wholly nutritional therapy for type 2 diabetes.  
 AUTHOR: McCarty M.F.  
 CORPORATE SOURCE: M.F. McCarty, NutriGuard Research, 1051 Hermes Avenue,  
 Encinitas, CA 92024, United States  
 SOURCE: Medical Hypotheses, (Mar 2000) Vol. 54, No. 3, pp. 483-487.  
 Refs: 84  
 ISSN: 0306-9877 CODEN: MEHYDY  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review; (Review)  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 029 Clinical and Experimental Biochemistry  
 003 Endocrinology  
 006 Internal Medicine  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 4 May 2000  
 Last Updated on STN: 4 May 2000

AB It may now be feasible to target specific supplemental nutrients to each of the key dysfunctions which conspire to maintain hyperglycemia in type 2

diabetes: bioactive chromium for skeletal muscle insulin resistance, conjugated linoleic acid for adipocyte insulin resistance, high-dose biotin for excessive hepatic glucose output, and coenzyme Q(10) for beta cell failure. Nutritional strategies which disinhibit hepatic fatty acid oxidation (involving hydroxycitrate, carnitine, pyruvate, and other adjuvants) may likewise prove beneficial - in the short term, by decreasing serum free fatty acids and, in the longer term, by promoting regression of visceral obesity. The nutrients and food factors recommended here appear to be safe and well tolerated, and thus may have particular utility for diabetes prevention. (C) 2000 Harcourt Publishers Ltd.

## CT Medical Descriptors:

adipocyte

diet supplementation

\*diet therapy

fatty acid blood level

fatty acid oxidation

human

insulin resistance: PC, prevention

insulin resistance: TH, therapy

\*non insulin dependent diabetes mellitus: PC, prevention

\*non insulin dependent diabetes mellitus: TH, therapy

obesity: PC, prevention

priority journal

review

## CT Drug Descriptors:

\*biotin

carnitine: EC, endogenous compound

\*chromium

fatty acid: EC, endogenous compound

hydroxycitric acid: EC, endogenous compound

\*linoleic acid

pyruvic acid: EC, endogenous compound

\*ubidecarenone

RN (biotin) 58-85-5; (carnitine) 461-06-3, 541-15-1, 56-99-5; (chromium) 16065-83-1, 7440-47-3; (hydroxycitric acid) 27750-10-3, 6205-14-7; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (pyruvic acid) 127-17-3, 19071-34-2, 57-60-3; (ubidecarenone) 303-98-0

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ACCESSION NUMBER: 2001041374 EMBASE Full-text

TITLE: Rhabdomyolysis associated with nutritional supplement use.

AUTHOR: Scroggie D.A.; Harris M.; Sakai L.

CORPORATE SOURCE: Dr. D.A. Scroggie, 759 MDOS/MMIR, 2200 Bergquist Dr,  
Lackland AFB, TX 78236, United States.  
Daren.scroggie@59mdw.whmc.af.mil

SOURCE: Journal of Clinical Rheumatology, (2000) Vol. 6, No. 6, pp.  
328-332.

Refs: 25

ISSN: 1076-1608 CODEN: JCRHFM

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 031 Arthritis and Rheumatism  
033 Orthopedic Surgery  
037 Drug Literature Index  
038 Adverse Reactions Titles  
005 General Pathology and Pathological Anatomy

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 15 Feb 2001  
 Last Updated on STN: 15 Feb 2001

AB The use of alternative medicine in the United States has increased over the past 2 decades. With increasing use, the possibility of toxicity also increases. We report two cases of rhabdomyolysis related to the use of two nutritional supplements: Diet Fuel and GlutaMASS. Each of these patients was a young, healthy male who was on a steady training regimen. A review of the literature and of the U.S. Food and Drug Administration database revealed several reports of serious adverse events associated with these supplements and their ingredients. We hypothesize that the use of the supplements combined with normal physical training activities resulted in serious muscle injury.

CT Medical Descriptors:  
 adult  
 alternative medicine  
 article  
 blood chemistry  
 case report  
 \*diet supplementation  
 drug effect  
 Ephedra: AE, adverse drug reaction  
 Ephedra: PO, oral drug administration  
 Ephedra: PD, pharmacology  
 health hazard  
 human  
 male  
 muscle injury: SI, side effect  
 priority journal  
 \*rhabdomyolysis: ET, etiology  
 \*rhabdomyolysis: SI, side effect  
 training

CT Drug Descriptors:  
 2 oxoglutaric acid: AE, adverse drug reaction  
 2 oxoglutaric acid: PO, oral drug administration  
 2 oxoglutaric acid: PD, pharmacology  
 caffeine: AE, adverse drug reaction  
 caffeine: PO, oral drug administration  
 caffeine: PD, pharmacology  
 calcium: AE, adverse drug reaction  
 calcium: PO, oral drug administration  
 calcium: PD, pharmacology  
 carnitine: AE, adverse drug reaction  
 carnitine: PO, oral drug administration  
 carnitine: PD, pharmacology  
 chromium picolinate: AE, adverse drug reaction  
 chromium picolinate: PO, oral drug administration  
 chromium picolinate: PD, pharmacology  
 citrate potassium: AE, adverse drug reaction  
 citrate potassium: PO, oral drug administration  
 citrate potassium: PD, pharmacology  
 diet fuel  
 Garcinia cambogia extract: AE, adverse drug reaction  
 Garcinia cambogia extract: PO, oral drug administration  
 Garcinia cambogia extract: PD, pharmacology  
 glutamass  
 glutamine: AE, adverse drug reaction  
 glutamine: PO, oral drug administration  
 glutamine: PD, pharmacology  
 guarana extract: AE, adverse drug reaction  
 guarana extract: PO, oral drug administration

guarana extract: PD, pharmacology  
 \*herbaceous agent: AE, adverse drug reaction  
 \*herbaceous agent: PO, oral drug administration  
 \*herbaceous agent: PD, pharmacology  
 hydroxycitric acid: AE, adverse drug reaction  
 hydroxycitric acid: PO, oral drug administration  
 hydroxycitric acid: PD, pharmacology  
 magnesium oxide: AE, adverse drug reaction  
 magnesium oxide: PO, oral drug administration  
 magnesium oxide: PD, pharmacology  
 magnesium phosphate: AE, adverse drug reaction  
 magnesium phosphate: PO, oral drug administration  
 magnesium phosphate: PD, pharmacology  
 manganese: AE, adverse drug reaction  
 manganese: PO, oral drug administration  
 manganese: PD, pharmacology  
 phosphate: AE, adverse drug reaction  
 phosphate: PO, oral drug administration  
 phosphate: PD, pharmacology  
 potassium dihydrogen phosphate: AE, adverse drug reaction  
 potassium dihydrogen phosphate: PO, oral drug administration  
 potassium dihydrogen phosphate: PD, pharmacology  
 RNA: AE, adverse drug reaction  
 RNA: PO, oral drug administration  
 RNA: PD, pharmacology  
 taurine: AE, adverse drug reaction  
 taurine: PO, oral drug administration  
 taurine: PD, pharmacology  
 unclassified drug

RN (2 oxoglutaric acid) 328-50-7; (caffeine) 30388-07-9, 58-08-2; (calcium) 7440-70-2; (carnitine) 461-06-3, 541-15-1, 56-99-5; (chromium picolinate) 14639-25-9; (citrate potassium) 3609-96-9, 7778-49-6, 866-83-1, 866-84-2; (glutamine) 56-85-9, 6899-04-3; (hydroxycitric acid) 27750-10-3, 6205-14-7; (magnesium oxide) 1309-48-4, 1317-74-4; (magnesium phosphate) 10043-83-1, 13092-66-5; (manganese) 16397-91-4, 7439-96-5; (phosphate) 14066-19-4, 14265-44-2; (potassium dihydrogen phosphate) 7778-77-0; (RNA) 63231-63-0; (taurine) 107-35-7

CN (1) diet fuel; (2) glutamass

CO (1) Twin Laboratories (United States); (2) prolab nutrition (United States)

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ACCESSION NUMBER: 1999281025 EMBASE Full-text

TITLE: (-)-Hydroxycitric acid does not affect energy expenditure and substrate oxidation in adult males in a post-absorptive state.

AUTHOR: Kriketos A.D.; Thompson H.R.; Greene H.; Hill J.O.

CORPORATE SOURCE: Dr. J.O. Hill, Center for Human Nutrition, Univ. CO Health Sciences Center, Campus Box C225, 4200 East Ninth Avenue, Denver, CO 80262, United States

SOURCE: International Journal of Obesity, (1999) Vol. 23, No. 8, pp. 867-873.

Refs: 27

ISSN: 0307-0565 CODEN: IJOB DP

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 029 Clinical and Experimental Biochemistry  
 003 Endocrinology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 26 Aug 1999

Last Updated on STN: 26 Aug 1999

AB OBJECTIVE: (-)-Hydroxycitric acid ((-)-HCA) is available as a herbal supplement, and promoted as a weight loss agent. It is hypothesized that (-)-HCA can increase fat oxidation by inhibiting citrate lyase, an enzyme which plays a crucial role in energy metabolism during de novo lipogenesis. The indirect inhibition of the cytosolic pool of citrate by (-)-HCA and the subsequent reduction in acetyl coenzyme A and oxaloacetate alters steps in the citric acid cycle that promote fat oxidation. The objective of this study was to determine the effect of (-)-HCA on marker substrates of altered metabolism, as well as on respiratory quotient (RQ) and energy expenditure (EE) in humans, following an overnight fast and during a bout of exercise. HYPOTHESIS OF STUDY: We hypothesized that supplementation with (-)-HCA would result in an increase in fat oxidation and metabolic rate, reflected by an increase in  $\beta$ -hydroxybutyrate and EE and/or a decrease in RQ. Furthermore, during moderately intense exercise, we hypothesized that (-)-HCA supplementation would increase the rate of lactate conversion to glucose in the liver, with a subsequent reduction of circulating lactate and an elevation of circulating ketone bodies due to the increased partial oxidation of fatty acids (FA) in mitochondria. Studies have examined the fat regulating action of (-)-HCA on steps of the citric acid cycle in rodents showing reductions in body weight and food intake. No studies have investigated the effects of (-)-HCA supplementation in conjunction with a typical daily dietary composition (that is approx 30-35% fat) on metabolic processes which could influence body weight regulation in humans. DESIGN: This was a double blind, placebo controlled, randomized, crossover study involving three days of (-)-HCA (3.0 g/d) or placebo supplementation. The effects of (-)-HCA supplementation on metabolic parameters with or without moderately intense exercise was studied over four laboratory visits. SUBJECTS: Sedentary adult male subjects (n = 10, age: 22-38 y, body mass index (BMI) 22.4-37.6 kg/m<sup>2</sup>). MEASUREMENTS: Two of the four visits involved no exercise (Protocol A) with and without (-)-HCA treatment, while the remaining two visits included a moderately intense exercise bout [Protocol B; 30 min at 40% maximal aerobic fitness (V(2)max) and 15 min at 60% V(2)max) with and without (-)-HCA treatment. EE (by indirect calorimetry) and RQ were measured for 150 min following an overnight fast. Blood samples were collected for the determination of glucose, insulin, glucagon, lactate, and  $\beta$ -hydroxybutyrate concentrations. RESULTS: In a fasted state and following 3 d of (-)-HCA treatment, RQ was not significantly lowered during rest (Protocol A) nor during exercise (Protocol B) compared with the placebo treatment. Treatment with (-)-HCA did not affect EE, either during rest or during moderately intense exercise. Furthermore, the blood substrates measured were not significantly different between treatment groups under the fasting conditions of this study. CONCLUSION: These results do not support the hypothesis that (-)-HCA alters the short-term rate of fat oxidation in the fasting state during rest or moderate exercise, with doses likely to be achieved in humans while subjects maintain a typical Western diet (approx 30-35% total calories as fat).

CT Medical Descriptors:  
 adult  
 article  
 body mass  
 body weight  
 calorimetry  
 citric acid cycle  
 clinical trial  
 controlled study  
 crossover procedure  
 diet supplementation  
 double blind procedure



\*energy expenditure  
 energy metabolism  
 enzyme inhibition  
 exercise  
 food intake  
 glucagon blood level  
 glucose blood level  
 human  
 human experiment  
 insulin blood level  
 lactate blood level  
 lipogenesis  
 liver  
 male  
 metabolic rate  
 mitochondrion  
 normal human  
 \*oxidation  
 priority journal  
 randomized controlled trial  
 respiratory quotient  
 rodent  
 weight reduction

## CT Drug Descriptors:

3 hydroxybutyric acid: EC, endogenous compound  
 acetyl coenzyme a: EC, endogenous compound  
 fatty acid: EC, endogenous compound  
 glucagon: EC, endogenous compound  
 glucose: EC, endogenous compound  
 \*hydroxycitric acid  
 insulin: EC, endogenous compound  
 ketone body: EC, endogenous compound  
 lactic acid: EC, endogenous compound  
 lyase: EC, endogenous compound  
 oxaloacetic acid: EC, endogenous compound

RN (3 hydroxybutyric acid) 300-85-6; (acetyl coenzyme A) 72-89-9; (glucagon) 11140-85-5, 62340-29-8, 9007-92-5; (glucose) 50-99-7, 84778-64-3; (hydroxycitric acid) 27750-10-3, 6205-14-7; (insulin) 9004-10-8; (lactic acid) 113-21-3, 50-21-5; (lyase) 9055-04-3; (oxaloacetic acid) 149-63-3, 328-42-7

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ACCESSION NUMBER: 1998306923 EMBASE Full-text  
 TITLE: Pyruvate: Beyond the marketing hype.  
 AUTHOR: Sukala W.R.  
 CORPORATE SOURCE: W.R. Sukala, Dept. of Exercise/Nutritional Sci., San Diego State University, San Diego, CA 92182, United States  
 SOURCE: International Journal of Sport Nutrition, (1998) Vol. 8, No. 3, pp. 241-249.  
 Refs: 36  
 ISSN: 1050-1606 CODEN: ISNUE5  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Note  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 029 Clinical and Experimental Biochemistry  
 030 Clinical and Experimental Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 1 Oct 1998

Last Updated on STN: 1 Oct 1998

## CT Medical Descriptors:

athlete  
body fat  
  \*diet supplementation  
drug marketing  
endurance  
exercise  
human  
nonhuman  
note  
weight reduction

## CT Drug Descriptors:

acetyl coenzyme a  
antilipemic agent  
antioxidant  
chromium picolinate  
dihydroxyacetone  
fenfluramine  
hydroxycitric acid  
lactic acid  
phentermine

\*pyruvic acid: PD, pharmacology

RN (acetyl coenzyme A) 72-89-9; (chromium picolinate) 14639-25-9;  
(dihydroxyacetone) 67255-48-5, 96-26-4; (fenfluramine) 404-82-0, 458-24-2;  
(hydroxycitric acid) 27750-10-3, 6205-14-7; (lactic  
acid) 113-21-3, 50-21-5; (phentermine) 1197-21-3, 122-09-8; (pyruvic acid)  
127-17-3, 19071-34-2, 57-60-3

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ACCESSION NUMBER: 1994142606 EMBASE Full-textTITLE: Promotion of hepatic lipid oxidation and gluconeogenesis as  
a strategy for appetite control.

AUTHOR: McCarty M.F.

CORPORATE SOURCE: M.F. McCarty, Nutrition 21, 1010 Turquoise Street, San  
Diego, CA 92109, United StatesSOURCE: Medical Hypotheses, (1994) Vol. 42, No. 4, pp. 215-225.  
ISSN: 0306-9877 CODEN: MEHYDY

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review; (Review)

FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
002 Physiology  
029 Clinical and Experimental Biochemistry  
003 Endocrinology  
037 Drug Literature Index  
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 8 Jun 1994

Last Updated on STN: 8 Jun 1994

AB There is considerable evidence that hepatic vagal afferents monitor the  
availability of liver glycogen and glucose metabolites, and that this  
mechanism participates in appetite regulation. Thus, promotion of  
gluconeogenesis and liver glycogen storage may enhance satiety. Hepatic lipid  
oxidation drives gluconeogenesis by positive allosteric modulation of pyruvate  
carboxylase and fructodiphosphatase. The rate-limiting enzyme for hepatic  
lipid oxidation, carnitine acyltransferase I, is activated by exogenous  
carnitine, and inhibited by malonyl coA. The lipogenesis inhibitor (-)-  
hydroxycitrate - a natural fruit acid found in the Brindall berry - can

decrease production of malonyl coA in hepatocytes by potent inhibition of citrate lyase; many studies demonstrate that (-)-hydroxycitrate can reduce body fat accumulation in growing rats, owing in large part to a reduction in appetite. Joint administration of (-)-hydroxycitrate and carnitine should therefore promote hepatic lipid oxidation, gluconeogenesis, and satiety. Thermogenic effects as well as a reduction of the respiratory quotient can also be predicted. If this technique proves clinically useful in weight management, it could be used in conjunction with chromium picolinate and soluble fiber supplements, which appear to aid hunger control at the level of the hypothalamus and terminal ileum, respectively.

CT Medical Descriptors:

\*appetite  
 diet supplementation  
 \*glucogenesis  
 glycogen metabolism  
 human  
 hunger  
 hypothalamus  
 ileum  
 \*lipid oxidation  
 \*liver metabolism  
 oral drug administration  
 priority journal  
 review

CT Drug Descriptors:

\*glycogen: EC, endogenous compound  
 \*hydroxycitric acid

RN (glycogen) 9005-79-2; (hydroxycitric acid) 27750-10-3,  
 6205-14-7

10/541828

\*\*\*\*\* SEARCH HISTORY \*\*\*\*\*

=> d his nofile

(FILE 'HOME' ENTERED AT 10:55:08 ON 14 MAR 2008)

FILE 'HCAPLUS' ENTERED AT 10:55:18 ON 14 MAR 2008

L1 1 SEA ABB=ON PLU=ON US20060106101/PN  
D IBIB AB IT SC

FILE 'REGISTRY' ENTERED AT 10:57:00 ON 14 MAR 2008

FILE 'HCAPLUS' ENTERED AT 10:57:08 ON 14 MAR 2008  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 10:57:15 ON 14 MAR 2008

L2 20 SEA ABB=ON PLU=ON (27750-10-3/BI OR 109-99-9/BI OR 123-91-1/B  
I OR 1305-62-0/BI OR 213385-58-1/BI OR 546-93-0/BI OR 67-64-1/B  
I OR 7439-95-4/BI OR 7439-97-6/BI OR 7440-14-4/BI OR 7440-24-6/  
BI OR 7440-39-3/BI OR 7440-41-7/BI OR 7440-43-9/BI OR 7440-66-6/  
/BI OR 7440-70-2/BI OR 75-05-8/BI OR 867380-69-6/BI OR  
867380-70-9/BI OR 867380-71-0/BI)  
D SCAN

FILE 'REGISTRY' ENTERED AT 10:58:34 ON 14 MAR 2008

L3 STRUCTURE UPLOADED  
D

L4 0 SEA SSS SAM L3

FILE 'STNGUIDE' ENTERED AT 11:00:04 ON 14 MAR 2008

FILE 'REGISTRY' ENTERED AT 11:01:42 ON 14 MAR 2008

E C6H8O8/MF  
L5 43 SEA ABB=ON PLU=ON C6H8O8/MF  
L6 0 SEA ABB=ON PLU=ON L5 AND 4/H

FILE 'HCAPLUS' ENTERED AT 11:07:14 ON 14 MAR 2008

E GOKARAJU GANGA/AU  
L7 18 SEA ABB=ON PLU=ON ("GOKARAJU GANGA RAJU"/AU OR "GOKARAJU  
RAMA RAJU"/AU)  
E GOKARAJU RAMA/AU  
L8 15 SEA ABB=ON PLU=ON "GOKARAJU RAMA RAJU"/AU  
E GOTTUMUKKALA VENKATA/AU  
L9 15 SEA ABB=ON PLU=ON "GOTTUMUKKALA VENKATA SUBBARAJU"/AU  
E SOMEPELLI VENKATESWARLU/AU  
L10 11 SEA ABB=ON PLU=ON "SOMEPELLI VENKATESWARLU"/AU  
L11 17 SEA ABB=ON PLU=ON L7 AND ((L8 OR L9 OR L10))  
L12 15 SEA ABB=ON PLU=ON L8 AND ((L9 OR L10))  
L13 9 SEA ABB=ON PLU=ON L9 AND L10  
L14 17 SEA ABB=ON PLU=ON (L11 OR L12 OR L13)  
SAVE TEMP L14 VAL828HCAIN/A

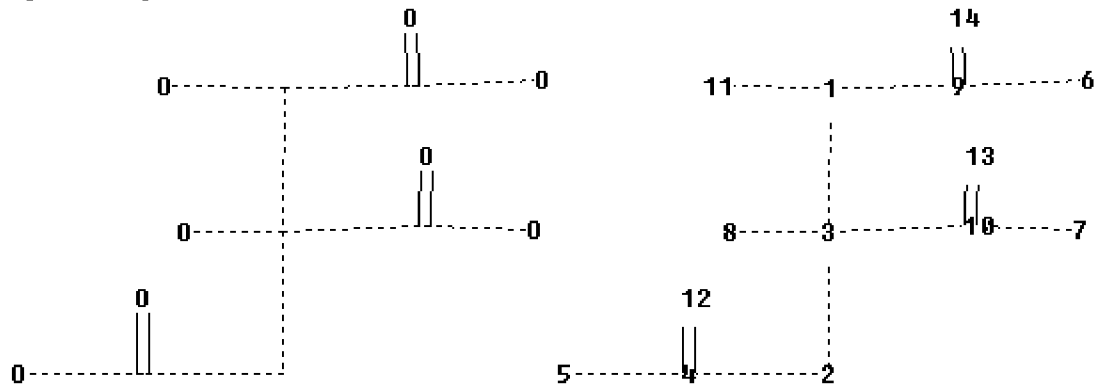
FILE 'STNGUIDE' ENTERED AT 11:12:40 ON 14 MAR 2008

FILE 'REGISTRY' ENTERED AT 11:14:13 ON 14 MAR 2008

L15 1 SEA ABB=ON PLU=ON L2 AND L5  
D SCAN  
L16 STRUCTURE UPLOADED  
D

L17 0 SEA SSS SAM L16  
 L18 STRUCTURE UPLOADED  
 D

Uploading L3.str



chain nodes :  
 8 11 12 13 14  
 ring/chain nodes :  
 1 2 3 4 5 6 7 9 10  
 chain bonds :  
 1-11 3-8 4-12 9-14 10-13  
 ring/chain bonds :  
 1-3 1-9 2-3 2-4 3-10 4-5 6-9 7-10  
 exact/norm bonds :  
 1-3 1-9 1-11 2-3 2-4 3-8 3-10 4-5 4-12 6-9 7-10 9-14 10-13

Match level :  
 1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

L19 5 SEA SSS SAM L18

FILE 'STNGUIDE' ENTERED AT 11:37:25 ON 14 MAR 2008

FILE 'REGISTRY' ENTERED AT 11:39:24 ON 14 MAR 2008

L20 238 SEA SSS FUL L18

L21 5 SEA ABB=ON PLU=ON L20 AND L2  
 SAVE TEMP L20 VAL828REGL3/A

FILE 'HCAPLUS' ENTERED AT 11:40:52 ON 14 MAR 2008

L22 418 SEA ABB=ON PLU=ON L20

L23 1 SEA ABB=ON PLU=ON L22 AND L1

L24 99 SEA ABB=ON PLU=ON L22 AND 17/SC, SX

L25 54 SEA ABB=ON PLU=ON L24 AND (AY<2004 OR PY<2004 OR PRY<2004)  
 E BEVERAGES/CT  
 E E3+ALL  
 E E2+OLD,NT/CT  
 E DIETARY SUPPLEMENTS/CT  
 E E3+ALL

L26 12650 SEA ABB=ON PLU=ON "DIETARY SUPPLEMENTS"+OLD,UF/CT

L27 11 SEA ABB=ON PLU=ON L25 AND L26

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      E BEVERAGES/CT
      E E3+ALL
L28      84058 SEA ABB=ON  PLU=ON  BEVERAGES+OLD,NT/CT
L29      16 SEA ABB=ON  PLU=ON  L25 AND L28
L30      23 SEA ABB=ON  PLU=ON  L27 OR L29
      E FEED ADDITIVES/CT
      E E3+ALL
L31      6339 SEA ABB=ON  PLU=ON  "FEED ADDITIVES"+UF/CT
L32      0 SEA ABB=ON  PLU=ON  L25 AND L31
L33      28452 SEA ABB=ON  PLU=ON  (DIET? OR BEVERAGE? OR FOOD?) (W) SUPPLEM?

L34      12 SEA ABB=ON  PLU=ON  L25 AND L33
L35      24 SEA ABB=ON  PLU=ON  L30 OR L34
L36      0 SEA ABB=ON  PLU=ON  L35 AND L1
      SAVE TEMP L35 VAL828HCAP/A
L37      16 SEA ABB=ON  PLU=ON  L14 NOT L35
      SAVE TEMP L37 VAL828HCAIN/A

FILE 'REGISTRY' ENTERED AT 11:49:29 ON 14 MAR 2008
L38      6 SEA ABB=ON  PLU=ON  L20 AND (AGRICOLA/LC OR BIOSIS/LC OR
      FSTA/LC OR FROSTI/LC OR NUTRACEUT/LC)

FILE 'AGRICOLA, BIOSIS, FSTA, FROSTI, NUTRACEUT' ENTERED AT 11:52:06 ON
14 MAR 2008

FILE 'AGRICOLA' ENTERED AT 11:53:00 ON 14 MAR 2008
L39      86 SEA ABB=ON  PLU=ON  L20

FILE 'BIOSIS' ENTERED AT 11:53:21 ON 14 MAR 2008
L40      73 SEA ABB=ON  PLU=ON  L20

FILE 'FSTA' ENTERED AT 11:53:33 ON 14 MAR 2008

FILE 'NUTRACEUT' ENTERED AT 11:53:59 ON 14 MAR 2008

FILE 'CABA' ENTERED AT 11:54:09 ON 14 MAR 2008
L41      0 SEA ABB=ON  PLU=ON  L20

FILE 'AGRICOLA' ENTERED AT 11:54:31 ON 14 MAR 2008
L42      5 SEA ABB=ON  PLU=ON  L39 AND L33

FILE 'BIOSIS' ENTERED AT 11:55:15 ON 14 MAR 2008
L43      73 SEA ABB=ON  PLU=ON  L20
L44      11 SEA ABB=ON  PLU=ON  L43 AND L33

FILE 'MEDLINE' ENTERED AT 11:56:04 ON 14 MAR 2008
L45      117 SEA ABB=ON  PLU=ON  L20
L46      10 SEA ABB=ON  PLU=ON  L45 AND L33

FILE 'EMBASE' ENTERED AT 11:57:03 ON 14 MAR 2008
L47      183 SEA ABB=ON  PLU=ON  L20
L48      38 SEA ABB=ON  PLU=ON  L47 AND L33

FILE 'AGRICOLA, MEDLINE, BIOSIS, EMBASE' ENTERED AT 11:57:39 ON 14 MAR
2008
L49      64 SEA ABB=ON  PLU=ON  L42 OR L44 OR L46 OR L48
L50      32 SEA ABB=ON  PLU=ON  L49 AND (AY<2004 OR PY<2004 OR PRY<2004)
      SAVE TEMP L50 VAL828MULTI/A
L51      2 SEA ABB=ON  PLU=ON  GOKARAJU G?/AU
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L52            2 SEA ABB=ON   PLU=ON   GOKARAJU R?/AU  
L53           22 SEA ABB=ON   PLU=ON   GOTTUMUKKALA V?/AU  
L54           1 SEA ABB=ON   PLU=ON   SOMEPALLI V?/AU  
L55           22 SEA ABB=ON   PLU=ON   (L51 OR L52 OR L53 OR L54)  
L56           0 SEA ABB=ON   PLU=ON   L55 AND L20  
L57           1 SEA ABB=ON   PLU=ON   L55 AND L33  
L58           1 SEA ABB=ON   PLU=ON   L56 OR L57  
              SAVE TEMP L58 VAL828MULTIN/A

FILE 'STNGUIDE' ENTERED AT 12:02:00 ON 14 MAR 2008  
D QUE L37  
D QUE L58

FILE 'HCAPLUS, BIOSIS' ENTERED AT 12:04:09 ON 14 MAR 2008  
L59           17 DUP REM L37 L58 (0 DUPLICATES REMOVED)  
              ANSWERS '1-16' FROM FILE HCAPLUS  
              ANSWER '17' FROM FILE BIOSIS  
              D L59 1-16 IBIB ABS HITSTR  
              D L59 17 IBIB AB  
              D QUE L35  
              D QUE L50

FILE 'HCAPLUS, AGRICOLA, MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:05:46 ON  
14 MAR 2008  
L60           51 DUP REM L35 L50 (5 DUPLICATES REMOVED)  
              ANSWERS '1-24' FROM FILE HCAPLUS  
              ANSWER '25' FROM FILE AGRICOLA  
              ANSWERS '26-31' FROM FILE MEDLINE  
              ANSWERS '32-34' FROM FILE BIOSIS  
              ANSWERS '35-51' FROM FILE EMBASE  
              D L60 1-24 IBIB ED ABS HITSTR HITIND  
              D L60 25-51 IBIB AB HITIND